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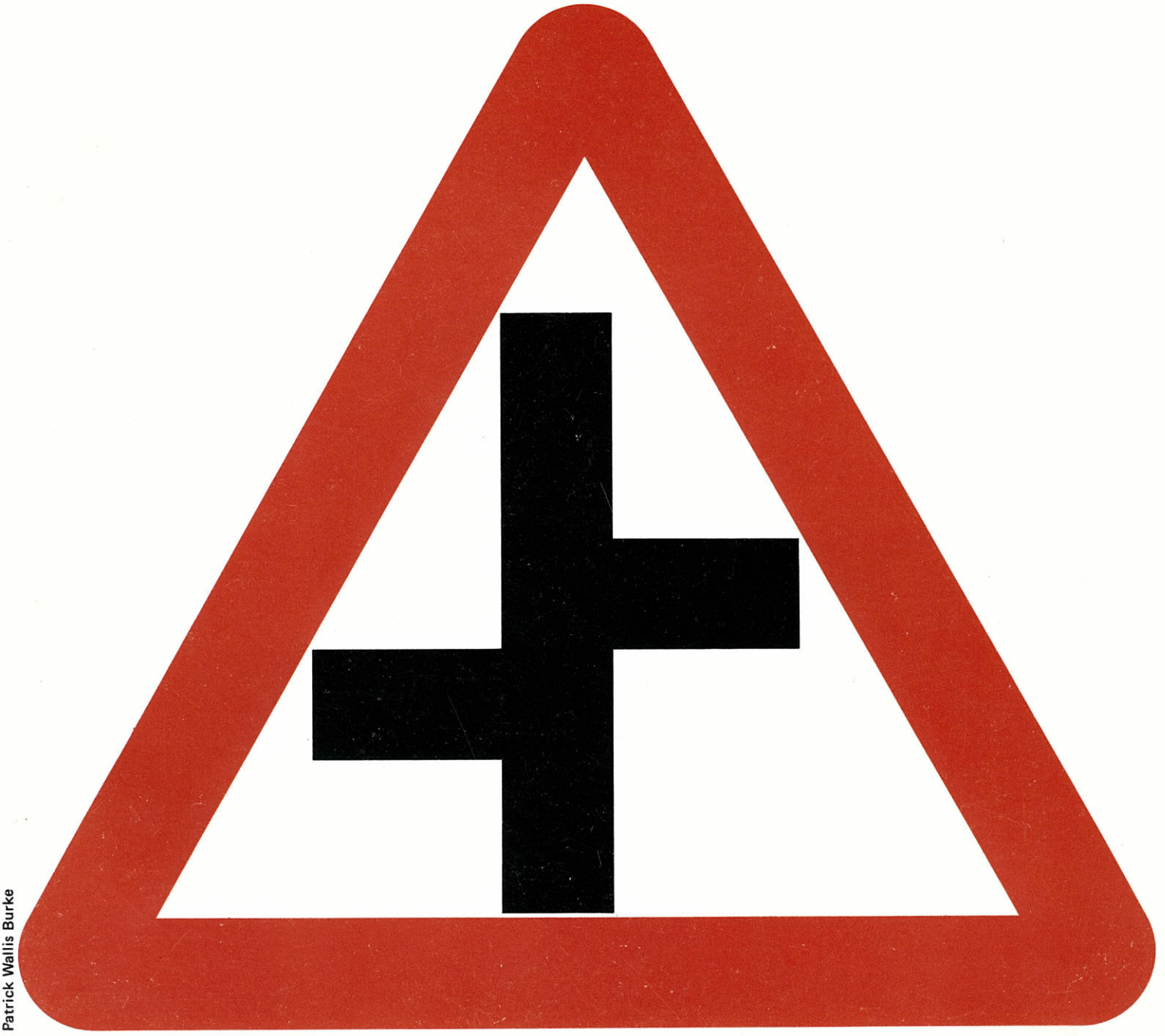

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FROM
LETRASET

Letraset

icographic

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Introduction

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This issue of *icographic* contains a number of contributions which, although seemingly disparate, are linked by a common concern.
Each of our contributors, whatever their particular subject, seems to be questioning our established way of thinking.
All of them, certainly, are linked by their interest in the processes of human communication, whether it be handwriting, typesetting, film-setting, traffic signs, or even the apparent absurdities of English orthography. Each of them, however, comes up with something new to say about apparently well-worn themes.

Type in our environment
Armin Hofmann

Armin Hofmann's brief opening remarks to a lecture given at the 16th International Congress on *Education in Letterforms* includes an important reminder to all typographical designers;
"Moveable letters secured a new freedom of movement from the time their material forms ceased to be restricted to wood, metal or synthetics. Far too little importance has been given to this fact, for otherwise we would have realised immediately that filmsetting dispenses with those functions which were the backbone of the original invention; individual parts are no longer interchanged, nor do they run only in one direction; they are no longer restricted to the previous limited range of sizes, no longer chained to type-carriers, no longer limited to specific dimensions.
The written word has moved closer to spoken language, to gesture and can now be compared more readily with representational images."
He points out that technical developments give the possibility of creating messages that are more precise and more colourful.
The new generation of designers will have to construct open-ended, superior forms of communication in which type may well play a part, but will be quite unlike anything we know today.

A proposition for education in letterforms and handwriting
Wim Crouwel

The author suggests some practical alternatives to the present methods of teaching handwriting. He argues that trying to teach children a predetermined pattern, with strict limitations, is out of character with present thinking about education.
He believes that teaching must first seek to discover the basic pattern which is strictly personal to each individual and, in this way explore the innate creativity of the child.
By so doing, one might enable a personal style of handwriting to develop much earlier and more harmoniously. His major contention is that teaching every child to write in the same way, in the hope that this will later develop into a more personal style, is the wrong approach.
He argues that what has to be done is to deduce the basic patterns of writing from a study of pre-writing behaviour. These will then provide the directions for creating a method of teaching that can exploit individual natural patterns of expression.

Investigation into colour preferences
Tom Porter

The author describes a number of experiments that he has carried out in connection with colour preference.
His work, so far, seriously questions the validity of Eysenck's *Universal Scale of Preference.*
Eysenck suggested in 1941 that short-wavelengths are generally preferred to long-wavelengths and that a general order of preference might be 1 blue, 2 red, 3 green, 4 violet, 5 orange, and 6 yellow.
As a consequence of his own work, Tom Porter suggests that there is a likelihood of a more positively related preference for the visible wavelength order of the spectrum.
Furthermore, he argues that current fashion trends can significantly modify any order of preference.
Tests with fashion-conscious European students and African young people show marked dissimilarities.
He hopes to carry out further experimental work with the long term aim of possibly developing predictive powers in relation to colour preference, and so contribute a more rational approach to this part of the design process.

Swiss posters for Amnesty International

We show a selection of posters by Swiss designers for a project initiated by Amnesty International.
The work was organised by the Association Suisse des Graphistes (ASG), in response to Amnesty International's request. The subject chosen was 'How the graphic designer sees the problem of the torture of political prisoners.'
The posters are particularly interesting because they show many different interpretations of this theme. Equally, they show the deep concern of Swiss designers over the question of cruelty to political opponents.

Sound-writing
Kingsley Read

George Bernard Shaw died convinced that a new English alphabet was needed to enable people to read and write the language more efficiently.
He left funds for the purpose and the story of the evolution of this new alphabet is related by its designer Kingsley Read. The author tells how

Type in our environment

Armin Hofmann

This short article is taken from the introductory remarks to an illustrated lecture given by Armin Hofmann at the 16th International Congress on 'Education in Letterforms' held in Copenhagen.
The Congress was organised by the Association Typographique Internationale, and we are grateful to them for their permission to publish this extract

Shaw became interested in the proposition of a completely phonetic alphabet which had sufficient characters to satisfactorily render every speech sound in English with only one specific symbol.
It is interesting to note that Shaw's advocacy of a new alphabet was prompted by utilitarian, rather than educational motives.
He was deeply concerned about the waste occasioned by the traditional alphabet—waste of redundant characters, waste of time, space, printer's ink and paper.
In 1962, when the first and only book printed in the new alphabet was published by Penguin Books (Androcles and the Lion), such considerations seemed a bit eccentric. Today, with the present rising costs and the growing shortage of materials, his suggestions seem infinitely more relevant. As can be seen from the parallel text setting of *Androcles and the Lion,* the use of the new 48 character alphabet results in a 50% saving of space, without any reduction in point size.

Concerning signposting
and
Signposting and communication media
Paul Mijksenaar and Gerard Unger

One of the most interesting and perhaps least understood phenomenon is the relationship between words and future events.
When we say, for example, 'Danger ahead!' we are not really describing a situation in the real world, so much as trying to make something happen in the mind of the viewer of our warning.
With words, or with pictures, we can seek to influence, and to a certain extent *control future events.*
The study of communication systems designed to control, direct, or influence the future actions of fellow human beings is an ancient preoccupation, no doubt, but one which has been given new impetus through industrialization.
Our increasingly complex world demands ever more efficient signposting.
Two Dutch designers, Paul Mijksenaar and Gerard Unger contribute two valuable articles on this theme.
Their first is meant to serve as an introduction to signposting when considered as a communication or information system.
They argue strongly for considerably more research to be carried out than at present. Good signposting requires the involvement of architects, sociologists, planners, traffic-technologists, and typographers. Other, as yet unsuspected disciplines, may also have a contribution to make.
Fundamental research on a wide front is the only way in which to drastically reduce human error—human error that has caused the tragic death or injury of so many people. During the last few decades there has been a rapid increase in the scale of development.
New towns, new roads, enormous increases in the volume and speed of traffic—all have added to the difficulties encountered by any human being who wants to find his way safely from one place to another.
In these changed circumstances, signposting becomes a key part of the environment. Furthermore, in a world that the aeroplane and telecommunications have made smaller, it is vital that the eventual solutions are universal, rather than parochial.

The second part of their contribution consists of a kind of visual notebook. In it they detail and comment upon a wide range of existing communication devices, such as maps, diagrams of various kinds, models, graphic symbols, strip cartoons and the like. They also make a number of valuable suggestions that should be of interest to anyone caught up with the problems of creating signposting systems.
They describe the new dwelling code which the impressively rational Dutch intend to introduce shortly. They suggest that it could be further extended to detail an exact space within a dwelling. Since this number code would indicate a space, rather than a person, any proposed signposting system could be permanent. They rightly admit that the use of these kinds of codes presents human problems.
Finding some means that recognises the emotional needs of the traveller must be a major consideration in any flexible system of signposting.

Typographical training for technicians and technical training for typographers
Adrian Frutiger

This eminent type-designer contributes a thoughtful article on the training of typographers and technicians.
Essentially he believes that it would be preferable to turn technicians into typographers, rather than to worry very much about training typographers. As he points out, it is the operators of filmsetting equipment who have in their hands the possibility of debasing fundamental forms, of altering traditional spacing, of changing upright lines into a slope, and of playing around with the weight of the strokes.
Therefore, it is an important matter to give some aesthetic training to the technicians who are *in daily control of the machines.*
As he says, even a Stradivarius costing 100,000 dollars cannot make beautiful music on its own!

Moveable type is one of the most brilliant inventions of man.
It has endured for centuries, leaving its mark upon them, and fostering the developments which occurred during them. It has played a fundamental part in shaping our contemporary environment, and its inner structure is still an inspiration to the development of new systems and methods in our industrial society.
Its chief characteristics are that it can be composed, interchanged, repeated and reproduced; that it is non= representational, detached, unemotional and abstract; all these concepts typify the dominant ideology of the twentieth century.
In terms of evolution, it is hard to grasp the fact that any invention could run ahead of its time in its own way to so great an extent.
Consequently it might appear to be exceptionally daring for anyone to suggest here and now that the alphabetical system may have outgrown its usefulness.

As we all know, it is becoming increasingly difficult for the written message to reach its reader. A kind of illiteracy is constantly sweeping across the world. This affects the developed world in particular, where a knowledge of the alphabet is acquired in childhood, and is applied without apparent difficulty.
It seems that alphabet technology is no longer adequate to the task of representing and disseminating the complexity of contemporary events.
It becomes apparent that the present system, which strings together fragments that lack apparent meaning —and that can only acquire meaning in appropriate combinations—must be replaced by methods which have been conceived more organically.
Structures can be conceived which would allow for more copious scoring, for multiple superimposition of media, and for direct simultaneous perception.

A brief comparison between the written word and our other traditional means of communication, namely speech, clearly establishes that the latter is in a better position to cope with the deterioration of meaning, form and practice.
Due to its more flexible structure, it can adapt more speedily and is in general able to react more decisively to the challenges of our time.
Speech is less formal, less determinate, less definite, less tied to technology than writing; it is not so firmly fixed in time and is more highly integrated. The spoken word is a more highly articulated, efficient means of expression; it is more discriminating and controllable; it is more easily corrected than the written word. Karl Gerstner wrote in his *Compendium of Alphabets;*
'The criteria for expressing language in writing must be borrowed from the realm of the spoken language, where they are more highly developed.'

Marshall McLuhan writes:
'The auditory sense, unlike the cool and neutral eye, is hyper-esthetic and delicate and all-inclusive.
Oral cultures act and react at the same time. Phonetic culture endows men with the means of repressing their feelings and emotions when engaged in action. To act without reacting, without involvement, is the peculiar advantage of Western literate man.'
(Understanding Media, 1964, chapter 9)
Naturally it is not a question of spoken language serving as a pattern for written language, nor *vice versa* of written language serving as a pattern for speech. But if we compare both communication systems, we come across some interesting factors relating to quality, speed and differences in perceptual processes; and we pick up hints about the directions which future methods of communication might possibly take.

Moveable letters secured a new freedom of movement from the time their material forms ceased to be restricted to wood, metal or synthetics. Far too little importance has been given to this fact, for otherwise we would have realised immediately that filmsetting dispenses with those functions which were the backbone of the original invention; individual parts are no longer interchanged, nor do they run only in one direction; they are no longer restricted to the previous limited range of sizes, no longer chained to type-carriers, no longer limited to specific dimensions.
The written word has moved closer to spoken language, to gesture and can now be compared more readily with representational images.
Technical developments point to the possibility of disseminating messages that are more precise and more colourful. The alphabet is now less dependent upon any one system.
It has reached a stage where it can be used in conjunction with other communication methods and systems.
It can be used to assist in getting across complicated subject matter, it can assimilate complementary elements from systems alien to itself and integrate them.
The alphabet has become eager to co-operate, and is fully capable of assuming new co-ordinating roles.
The media are beginning to overlap and combine and even to swallow each other up, so as to arise anew.
The coming generation of designers will have to take on the task of constructing open-ended, superior communication systems in which type may have its part to play, but which will be quite unlike anything we know today.

A proposition for education in letterforms and handwriting

Wim Crouwel

The text of Wim Crouwel's article is taken from a paper given at the 16th International Congress on 'Education in Letterforms', held in Copenhagen during August 1973. The Congress was organised by the Association Typographique Internationale, and we are grateful for their permission to publish it in this issue

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When talking about 'education in letterforms', we cannot separate this activity from other activities in the field of creative education.
In my view, education in letterforms means helping a human being to find a personal form of expression through letterforms. It does not mean, learning to copy existing types.

If today we find ourselves in a critical situation with education in letterforms, it only means that we have discovered how nonsensical it is to follow any of the numerous 'how-to-do-it' systems. We are no longer sure which method or which direction is better or best.

It is as if the environment has become polluted with type, with written shapes and with printed letterforms. No clear line can be perceived.

When I set out to say that none of this can be seen as a separate situation, I mean that the same critical point has been reached in most other fields of education. For example, in the field of art-education: from the moment on, when everything was possible in art, problems arose.
These problems occur in almost every art-school; the possibilities are endless, and teaching is no longer accepted in the old way (the way that stands for 'the man who *knows* teaches the one who does *not* know').
It is no longer possible to talk about 'beauty' or 'ugliness', or about 'good taste' or 'bad taste' in absolute terms. 'Aesthetic' has become a term which can be interpreted in many different ways. Any shape for a utility-object is as good as any other shape as long as it serves its purpose; as long as it is ergonomically satisfactory in handling. So any letterform is as good as any other letterform today, provided it serves a certain aim.

The result is that there is no longer any basic standard to which we can refer, either for shape in general, or more specifically for letterforms.

Let me concentrate on letterforms.

Today we are still willing to accept that certain historic typefaces are perfect examples, mainly because these types were in accord with the time of their creation, and perfectly expressed that time. But what typeface today expresses *our* time?
Is it the so-called computer-type with strange dots and thicknesses here and there? Or is it the neutral easy-to-read sanserif? Is it the standardised functional forms of handwriting with those ball-point pens which are forced into the child's fingers?

Our present strangely unrealistic computer-type is only fashionable as a short-term trend-setter that has nothing to do with computers.
Sanserif receives another finishing touch every five or ten years according to fashion, and today's hand-writing is the most deadly system for any touch of personality.

The only way out of this critical stage in designing and teaching is, in my view, a cellular approach to the problems. This means thinking along the lines of cellular patterns as a basic structure for design in general. Regular patterns, in the widest sense, allow the greatest freedom of forms and shapes and, at the same time, bring a specific point of view which goes like a red line through every form that results from this way of conceiving design.
Let crystallography serve as an excellent example in Nature!

This is a new starting point for all two—and three-dimensional design problems—for letterforms as well as for industrial design.

We have to create rules for a new design method; to work in accordance with these rules will lead to results which will fit into a new invisible system, this will not force us into uniformity but will allow the greatest degree of freedom and flexibility.

At the same time letterforms will evolve away from their existing forms, and will almost cease to be possible to make faithful copies of historical typefaces. (See for example what Digiset, the Linotron, or any other CRT machine, which works along the lines of regular patterns, is making of historical types. Take a close look through a magnifying=glass; because the pattern is so small as to be almost invisible to the naked eye, we accept these ill-shaped results!)

We really need a new way of thinking to get ourselves out of the mess we are making of the problem.

So we no longer have to teach finished letterforms, but instead we have to teach the rules of regular patterns; and we have to open up the fantastic world of pattern systems.
This is the grammar to serve a language of new forms and shapes.
It is not a 'new' way of thinking; the sign-systems of the middle-ages, as well as the earlier 19th century Hokusai handbooks for the textile trade, are older examples of the same principle.

How can this direction of thinking which is so well suited to the design of printed letterforms, be worked out to encourage a more personal form of handwriting?

In principle, each style of handwriting fits into a basic pattern; almost every teaching method for handwriting starts with a determined pattern and, from the strict limitations of this basis, one has later to develop a personal style.

I think we have to invert this system. We have first to find the basic pattern which is strictly personal for each individual, so as to explore the existing creativity of the child; personality in handwriting can then start much earlier and will develop far more harmoniously.

Different teaching systems exist today. Systems that use single, double, triple, or more lines along which to write; systems that start off beginners with a flexible pen, a flat pen or a pencil; systems that use pre-printed examples, which start with the single letter, or which start with certain letter-combinations; or the most advanced system, which starts with the drawing.
But all these systems have one thing in common; the result is to be more or less the same script so as to provide a communication tool.
This utility purpose is primary; self-expression is always secondary.

In my opinion both purposes are equally important; neither should be given preference. Certainly not in this era of type-writers, dictaphones and other tools, which serve the same purpose of communication just as well or even better.

Instead of trying to teach every individual child to write in the same style, with the underlying belief that this will later change automatically into a more personal style, we should help the child by the rules of the game and by the natural feeling for the basic patterns.
For this we have to discover basic patterns from a study of the child's uncontrolled scribbling in its pre-writing period, and these will provide basic directions toward its natural feeling for rhythm.
Rhythmic scribbling exercises could serve to uncover natural basic patterns.

The most important element in this pattern is the angle, or the different angles of movements; other elements are widths and heights which can only be defined at a later stage. Having defined the principal pattern elements of each individual child, the actual teaching of writing can begin.

The complete regular pattern can be used right away without fear of disturbing the natural free movement because this pattern is itself a record of free muscle reflexes.

For these earliest writing exercises, we should not teach the basic symbols of the alphabet in a specific traditional form, but only basic form=characteristics.
These basic form-characteristics should be shown in such a way that the child can interpret them in its own way. A moving picture could serve this purpose, or a series of slides could show the symbol in different existing forms.
The idea is not to show a specific 'a' but to show the characteristics of the symbol 'a' etc.

Some of the basic patterns may, at first, look rather different from the ones we use today in teaching handwriting; especially if we take into account right- and left-handed patterns.

This general approach to handwriting will be much freer and entail fewer frustrations. Its advantages will be a greater sensitivity in recognising patterns, and greater sensitivity towards the basic rules of form and shape.

Investigation into colour preferences

Tom Porter

The present climate of immense exposure to colour in the form of advertising, fashion, colour television and film, and the awareness that the use of colour in the built environment is in a tentative and uncertain syndrome, has prompted me to make an investigation into patterns of likes and dislikes for individual colours. If such patterns exist and if we can isolate these preferences then this information would be extremely relevant to the design processes of architects and designers.

My own interest in this field stems from my time as an art student. I was exhibiting a series of non= figurative paintings in a large furniture store and after a few weeks I was contacted by the manager who asked me to supply him with more predominantly blue-purple and red= orange canvases as these had sold well; the predominantly yellow and green paintings remained unsold.

Several years later I discovered that blue and red occupied the first two positions in Eysenck's *universal scale of colour preference.* In 1941 Eysenck suggested the following order of preference based on the combined results of 26 investigations; 1 blue, 2 red, 3 green, 4 violet, 5 orange, 6 yellow. He then combined his findings with those of a large number of previous studies giving a total of 21,060 subjects of differing rate, age and cultural background and found the same result with regard to a general order of preference.

Eysenck also suggested that there was some strong biological basis for colour preference in that short= wavelengths are generally preferred to long-wavelengths. His suggestion agrees with J P Guilford who, in 1933, said "There remains sufficient agreement upon colour preferences to indicate a basic biological cause of likes and dislikes for colour."

Eysenck's universal colour scale has been little challenged and the fact that he assumes that it exists despite variations of sex, race, and cultural background has led me to question this hypothesis in the light of my experience with students over the last ten years.

If we first look at other research in this field we discover that there is some evidence which indicates that babies under twelve months old show a fascination for bright, long-wavelength colours; muted and short= wavelength colours, however, hold little interest. Agreement between some investigators (Fere, Valentine, Holden and Bosse) exists and suggests that up to the age of six the long= wavelength colours (red, orange and yellow) are preferred to the cool short-wavelength range.
It is also suggested that as children grow older the preference for red changes until there is a positive preference for blue. The transitional period is in dispute but Garth, Michaels, Imada and Dorcus suggest it coincides with the first psycho-physiological change in a child's life at seven years (the period of change in the teeth). Frieling, however, points to the second seven-year climacteric cycle (puberty) as the changing stage from red to blue preference. F Birren generalises and gives his preference order for childhood as: 1 red, 2 blue, 3 green, 4 violet, 5 orange, 6 yellow and supports Eysenck's universal scale for maturity.

My own work with young children does indicate a liking for red but not to a significant level. A test was carried out with fifty 3–5 year olds using six hues (violet, blue, green, yellow, orange and red) mixed by ICI Paints Division to keep constant the dimensions of saturation and brightness. The six colours were presented three times in the shape of thin card triangles, squares and circles on a horizontal grey board. Overall, the 150 presentations did show that red was the most liked colour with orange second, violet third and blue fourth. Yellow and green came fifth and sixth and appeared to be generally unpopular.

A similar test was undertaken in a nursery school with 5–6 year olds and a primary school with 7–9 year olds. Although the results did not indicate a significant order of preference the first choice of twenty 5–6 year olds did show red to be by far the most preferred colour; blue and yellow being liked equally in second place with violet ranked fourth and orange and green being least preferred.

First choices by twenty 7–9 year old primary school children did show that blue was slightly preferred to red and that blue and red were much preferred to green (3), violet (4), yellow (5), and orange (6).

A further experiment using *Smartie* sweets (specially prepared by Rowntree-Mackintosh in our six colours and including a blue Smartie which is not marketed in the commercial selection) was carried out with forty 5–7 year olds.
The taste factor was controlled in that all the coloured Smarties had identical 'centres' and our six hues were presented to the children on the same horizontal grey board.
The results, although again not significant, put the red Smartie in first place with blue and orange at equal second. Yellow was fourth, green fifth and violet sixth.

The three experiments do illustrate the fondness of young children for red (this is supported by staff in playgroups and nursery schools who find that red chalk, plasticine and paint is used up more quickly than other colours of these media). The experiments also indicate the rise in popularity of blue (blue occupied fourth place with the 3–5 age group, second place with yellow with 5–6 year olds and first choice in the 7–9 age group.)

One would have predicted that the blue Smartie would prove unpopular because of our general dislike of blue-coloured food but our test with the 5–7 year old children placed it in equal second position with orange. Indeed, their teacher was also surprised at this result explaining that in a previous test these same children had felt 'ill' after eating blue-dyed potatoes. I can only account for this by assuming that a liking for blue is developing or is indeed established at this stage supported to a certain degree by the novelty factor of a blue Smartie.

Another factor, however, might account for this apparent preference shift from red to blue.
In early childhood we know that colour is a dominant force over visual understanding of form and that a gradual change to form dominance takes place toward maturity. Women appear to be more affected by colour than men but as adults they are still basically form dominant. The early preference for warm, long-wavelength colours seem to me to correspond to the colour dominant and colour receptive child and as the visual perception of form develops, the liking for blue and short-wavelength colours takes over; the developing child beginning to seek more than just instant visual stimulation.
If one accepts Piaget's developmental approach in terms of chronological stages of development, the change from long to short-wavelength preference seems to occur after the egocentric stage between 2–5 years and possibly coincides with his third developmental stage of incipient co-operation between the ages of 7 and 8.

Further tests are planned, probably in two or three year increments, for the ages between 10 and 17 in order to track the apparent progress in liking for blue and possible decline in preference for red toward, during and beyond puberty. More work has to be done in this age range before any patterns of preference can be supported but at this stage it seems to me that the proposition of the 'shift' in liking from red to blue might possibly occur at or around the age of 7 years.

My next test series concentrated on the 18–25 age group and involved a different testing apparatus.
This equipment consists of a grey, vertical screen with three shaped apertures (square, circle, triangle) of equal area. Each of the six hues are presented on templates in random sequence through each of the three shaped holes making a total of 18 presentations to each subject. This series of tests with students at Oxford Polytechnic as subjects indicated no statistically significant order of colour preference. According to Eysenck, Birren and Frieling we might have expected to find blue and red in strong position on the preference scale. Two experiments with groups of 20 males and 20 females produced the following combined result: 1 orange, 2 blue, 3 violet, 4 yellow, 5 red, 6 green.

These findings did show strong agreement over the placing of orange and blue in the first and second ranks and they also point to the decline in preference for red by this age group. The statistical analysis of this result shows little significance in the rank order and this lack of agreement may indicate that at this age an established colour preference does not exist.
It also raises the question which has continually emerged during my experiments with 18–25 year old students. If we look again at Eysenck's universal scale we find orange in fifth position. In my test it occupies first place possibly because at the time of testing (1969) orange was a popular/fashionable colour amongst students. That this factor could have affected colour preference is supported by a recent test carried out in the library at Oxford Polytechnic. Six identical small reading rooms were painted in our six ICI colours and observations were made at various points in the day over a period of time as to their usage. A cursory look at the results (the data is still being processed) indicates the popularity of the violet room, violet being currently a very fashionable colour. More tests are planned to discover if a colour preference does exist as Eysenck postulated; investigate the possibility of this order being temporarily affected in time by the influence of fashionable changes; attempt to determine if any order of preference exists or not.

On the assumption that African students might be less exposed to fashionable colour trends, and in an attempt to ascertain the extent to which cultural background might influence colour preference, two tests were carried out in Botswana (1969) and Kenya (1970).
Both horizontal and vertical apparatuses were used for this investigation and the rank order of ten male and ten female 18–25 year old subjects in Botswana was; 1 blue, 2 green, 3 orange, 4 violet, 5 red, 6 yellow (statistically significant at .01 level).

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The rank order of ten male and ten female 18–25 year old subjects in Nairobi, Kenya was; 1 green, 2 blue, 3 violet, 4 orange, 5 red, 6 yellow (statistically significant beyond the .01 level).

If we compare these statistically significant findings with those of the Oxford students we see that the African students generally prefer the short-wavelength colours, placing green first (Kenya) and second (Botswana) place as opposed to sixth position in the Oxford study. Both student groups place blue in a very strong position (first in Botswana and second in Kenya and Oxford), also agreeing with red at fifth place. (We must remember that Eysenck's universal scale shows red in the second position). The high significance of the African results suggest that an established order of colour preference might exist in that continent and in that age group. If this is true then it is at some variance with Eysenck's order. A further factor which might support the possibility of the African student result in the light of the assumed lack of exposure to fashionable colour pressures is the fact that they are closely related to another significant result from an experiment with 60–90 year old subjects in Oxford which could indicate wider implications of this rank order of colours.

The test with this older group produced findings which point to a seemingly established order of preference at a high level of agreement. The descending order of preference of forty (twenty male and twenty female) 60–90 year olds was; 1 green, 2 blue, 3 violet, 4 red, 5 yellow, 6 orange (significant at the .01 level). It seems to me that this order of preference is much closer to the African findings than a comparison with Eysenck's scale in that green and blue occupy the first two places and red moves from fifth (African) to fourth position.

An interesting and perhaps contributory point about old people is the fact that there is a process of deterioration of the eye with age in the form of a 'skin' which produces a grey effect on the perception of colour. This deterioration process (accelerated by the smoking habit) makes it difficult to discriminate between green and blue. The result of this experiment, however, showed these same two hues as the strongly preferred colours and one can assume that they indicate agreement of an established order, or that the ageing eye is seeking 'peace' in the passive, short-wavelengths, blue and green possibly being perceived as neutrals.

A question is raised, however, when one begins to consider the application of such findings. Can one postulate that the colours which are preferred at a statistically significant level are necessarily the same colours that subjects would choose for their own living areas? If this were the case then a second question is raised. If one related preferred colours to the interior design of, say, an old people's home and used combinations of blue and green we might discover that the failure to discriminate between these hues could lead to serious accidents. It seems paradoxical to find that the colours which are most likely to be confused in tests tend to be, by far, the most popular colours amongst old people.

A most interesting experiment was carried out on the colour and brightness preferences of monkeys during 1970 by Nicholas Humphrey (Institute of Experimental Psychology, University of Oxford). His tests investigated the colour preferences of four male rhesus monkeys *(macaca mulatta)* in order to attempt to discover if this phenomenon exists in lower primates. The results proved to be extremely important. His findings showed that preferences were related to both brightness and colour. The brightness preferences were monotonically related to brightness over the range used in the experiment and, more significantly, the colour preferences were related to spectrum wavelength. The descending order of preference was : 1 blue, 2 green, 3 yellow, 4 orange, 5 red (statistically significant at the .01 level).

A comparison with the preference orders of African students and Oxford old people demonstrates a remarkable similarity. All groups seem to prefer short-wavelengths to long-wavelength colours which is expressed in the constant incidence of blue and green in first or second positions. The low ranking of red is also consistent across the three groups of preference orders, being placed in fourth position by old people, in fifth position in both African studies and ranked last in the rhesus monkey experiment. We might assume, in the light of the similarity of results, combined with the proposition that Africans and Oxford old people may be less colour fashion conscious, that the unexpected coincidence of Humphrey's results with monkeys could indicate that colour preferences are based on biological responses as many researchers, including Guilford, Eysenck and Granger have suggested. Eysenck had suggested (1941) that short-wavelengths are generally preferred to long-wavelengths but I cannot account for the high ranking of red in his universal scale. I suggest, tentatively, that the order of preference, if universal, is more directly related to the spectral wavelength arrangement of colour and that it might—in some age groups or societies—be altered 'temporarily' by the effect of external influences.

In summary, the evidence of this paper proposes that the change from red to blue preference is most likely to take place at the first climacteric stage in a child's life. It also seems that Eysenck's universal scale of preference as postulated in his 'classic' paper of 1941 is unsupported by the Oxford experiments (1969–73). Instead there seems a likelihood of a more positively related preference for the visible wavelength order in the spectrum. Furthermore, current trends in fashion and advertising could explain the lack of preference amongst the Oxford student group which is also supported by the highly significant results obtained in Kenya and Botswana. More experimental work is in progress to ascertain not only the validity (eg testing methods) and reliability (eg time variable) of these studies but also to take into account other variables, such as sex, further cross-cultural studies and completion of tests along the age spectrum. If one could find a correlation between these colour preferences studies and environmental displays (models, photographs and slides) which in turn could relate to real buildings, then one might develop predictive powers which would contribute a more rational direction to design processes.

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E Allan, Manager, Products Research, Rowntree-Mackintosh

Swiss posters for Amnesty International

In July 1973, the Association of Swiss Graphic Designers (Association Suisse des Graphistes ASG) sent a letter to all its members, associates and students, asking them to take part in a poster design project for Amnesty International.

The subject chosen was: "How the graphic designer sees the problem of the torture of political prisoners..."

A jury representing the ASG and Amnesty International has chosen one of the submitted designs for use as an official poster.

The posters were exhibited recently. None was given pride of place nor was any order of merit indicated. The sole aim of the exhibition was to show the many differing interpretations of the theme. It showed also the deep concern of Swiss graphic designers over the use of torture.

Shown here are 30 of the 75 posters which were exhibited. The numbers are intended only as a means of identifying the designers. They do not indicate any order of merit.

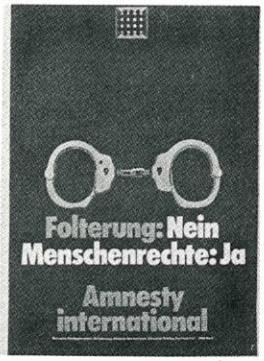






























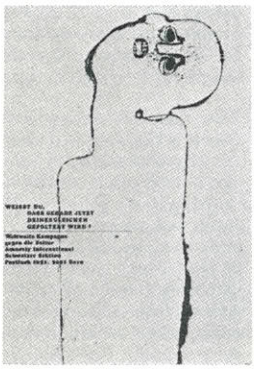
1 KGS Bern, Grafiker= Fachklasse, Lehrer P Andermatt
2 M Hugi, E Maurer, (Atelier Knoepfli, Bern)
3 Hanspeter Schneider (Atelier Baertsch, Murer, Ruckstuhl, Zurich)

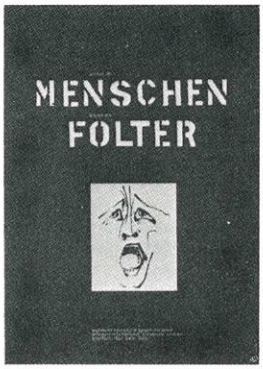
4 KGS Bern, Grafiker= Fachklasse, Lehrer P Andermatt
5 Peter G Ulmer, Shaffhausen
6 Rosemarie Ettler, Adliswil

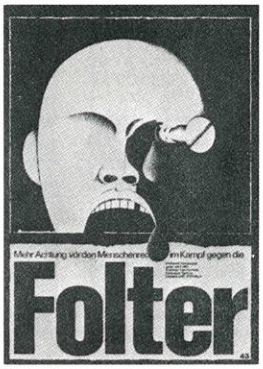
7 Rene Schmid, Zurich
8 Rudolf Knuessel, Luzern
9 H Scherrer (Atelier MB+Co, Zurich)

10 Ulrich Schenker, Kilchberg
11 Paul Leber, Zurich
12 Beat Knoblauch, (Atelier E+U Hiestand, Zollikon)

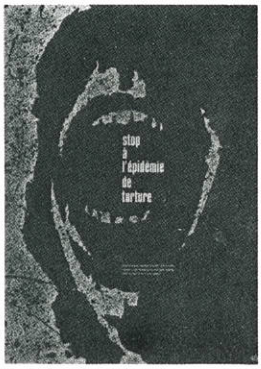
13 Urs Borner, Olten
14 M Hugi, E Maurer, (Atelier Knoepfli, Bern)
15 Walter Ottiger, Bern

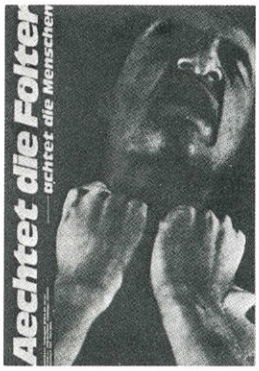
















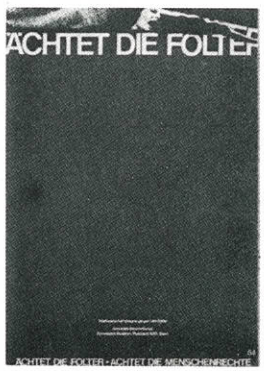














16 Herbert Auchli, Bern
17 Paul Uytterelst (Georg und Thomas Vetter, Zurich)
18 M Hugi, E Maurer, (Atelier Knoepfli, Bern)

19 Celestino Piatti, Basel
20 Guus Gugelot (Atelier MB+Co, Zurich)
21 KGS Bern, Grafiker= Fachklasse, Lehrer P Andermatt

22 Otto Lehmann, Luzern
23 Marco Lehmann, (Atelier Ch. W Stauffer, Kuesnacht
24 Edi Doswald, Zug

25 M Hugi, E Maurer, (Atelier Knoepfli, Bern)
26 Rosemary Joray, Basel
27 Roland Fischer, Biel

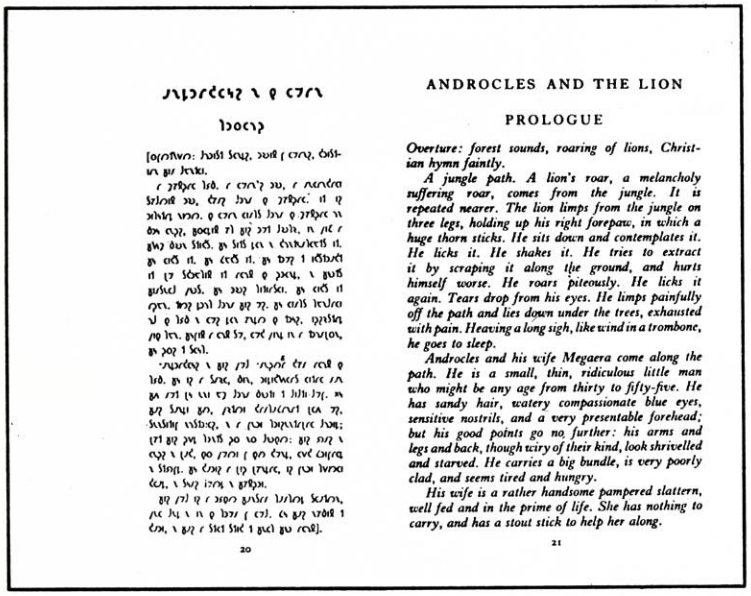
28 Michel Martina, Genf
29 Hanspeter Schneider, (Atelier Baertsch, Murer, Ruckstuhl, Zurich)
30 KGS Bern, Grafiker= Fachklasse, Lehrer P Andermatt

Below, the opening pages of the Penguin edition of Androcles and the Lion, *published in 1962. This unique edition shows the Shaw alphabet with a parallel transcription in traditional orthography. It is easy to see the considerable savings in space that would result from the use of the new alphabet*

Sound-writing

Kingsley Read

George Bernard Shaw died convinced that a new English alphabet was needed to enable people to write and read the language more efficiently. He left funds for that purpose, and the evolution of the new alphabet, known as the 'Shaw Alphabet', is related here by its designer Kingsley Read



ANDROCLES AND THE LION

PROLOGUE

Overture: forest sounds, roaring of lions, Christian hymn faintly.

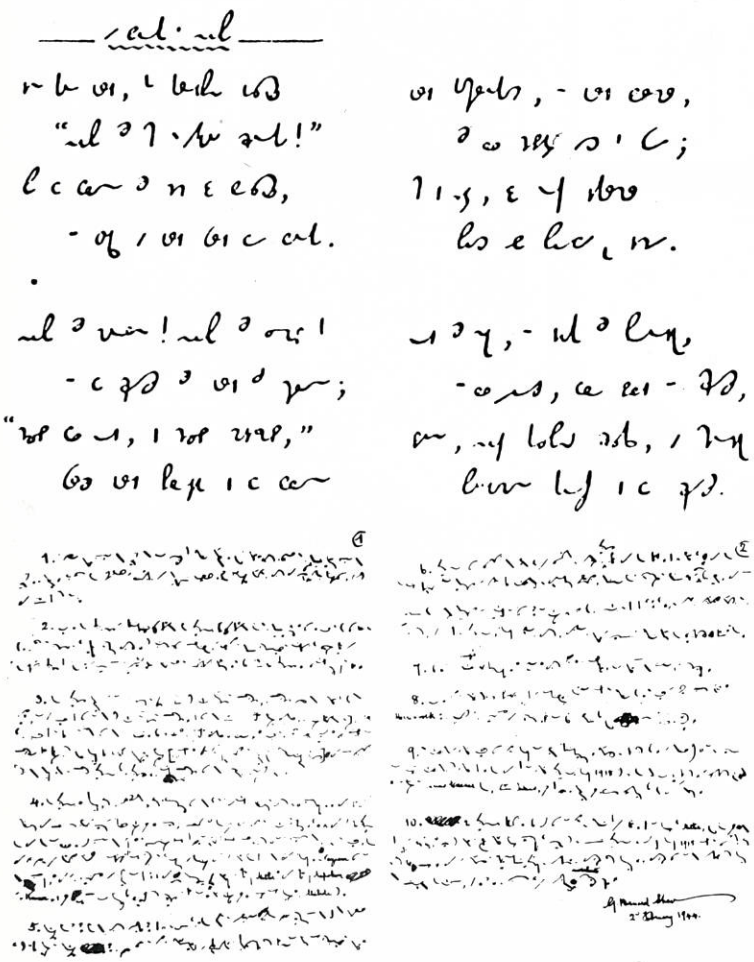
A jungle path. A lion's roar, a melancholy suffering roar, comes from the jungle. It is repeated nearer. The lion limps from the jungle on three legs, holding up his right forepaw, in which a huge thorn sticks. He sits down and contemplates it. He licks it. He shakes it. He tries to extract it by scraping it along the ground, and hurts himself worse. He roars piteously. He licks it again. Tears drop from his eyes. He limps painfully off the path and lies down under the trees, exhausted with pain. Heaving a long sigh, like wind in a trombone, he goes to sleep.

Androcles and his wife Megaera come along the path. He is a small, thin, ridiculous little man who might be any age from thirty to fifty-five. He has sandy hair, watery compassionate blue eyes, sensitive nostrils, and a very presentable forehead; but his good points go no further: his arms and legs and back, though wiry of their kind, look shrivelled and starved. He carries a big bundle, is very poorly clad, and seems tired and hungry.

His wife is a rather handsome pampered slattern, well fed and in the prime of life. She has nothing to carry, and has a stout stick to help her along.

20

21



Above, an example of the shorthand devised by Henry Sweet. Below, a much reduced copy of a letter by George Bernard Shaw

Shaw habitually drafted his own writings in the 40-letter alphabet of Pitman shorthand

Neither words nor alphabets have always been used in records. Cave men recorded hunting exploits pictorially. The earliest crude symbols to be written were unrelated to words; they were 'pictographs', simple standardised drawings, hundreds of which were needed to convey imprecisely a very limited range of ideas. With more precision, Chinese writing employed thousands of 'ideographs', which only experts could read and write.

Then, 3,000 or more years ago, came the highly economical, easily applied, exactly meaningful, writing with 'alphabets.' Given readers who spoke the writer's language, a few graphic symbols (now called 'letters') could serve to represent the few basic sounds with which a whole language was spoken. Words became visible as well as audible. The Phoenician, Greek, Etruscan and Latin languages were adequately represented by as few as 22 to 25 letters.

Roman civilization and the Roman Church made Latin the international language of writers in Britain and throughout Europe for roughly 1500 years. Although by 1400AD Chaucer and Wyclif were using a form of English, it was not the English we now speak. To the Latin alphabet a letter W had been added. Later, U and J became letters with sounds distinguished from those of V or I. But as the Latin C, Q and X have sounds otherwise represented (by S or K or KS or GZ), only 23 of our 26 letters could serve us for sound-matching, even if used consistently in our spelling. As there are at least 40 significantly differing speech sounds employed in speaking English, we lack 17 single letters for single sounds. To write these 17 sounds by means of couplets, triplets or quads of letters (such as sh, th, ch, wh, tch, owe, awe, eigh, ough) is ambiguous, unmethodical and wasteful. While we continue to use the Latin alphabet with only three added letters, spelling largely depends on memory, not on method.
An alphabet of some 40—or more—simpler characters would eliminate the waste of labour and materials caused by our traditional spelling irregularities. Writing and printing would occupy far less space.
It is this resulting *economy,* still not fully appreciated, that Bernard Shaw grasped and fostered. His aim was not conceived as educational but utilitarian.

The story begins with an unusual kind of alphabet concerned with economies in writing, published in 1892 by Henry Sweet of Oxford, a great authority on phonetics, the science which analyses speech into its few significantly different sorts of sound. Sweet's analysis of spoken English into some 40 sorts of sound was not original. Isaac Pitman among others had used 40 sound-sorts matched by as many characters, both for an abbreviated shorthand and for longhand (romanic) sound-writing.

The most distinctive feature of Sweet's *Current Shorthand* was that his characters *always* kept their appointed place on the horizontal 'writing line'; whereas Pitman's and other fast shorthands, by joining ends to beginnings in any sequence of characters, make words wander variously from a ruled or imagined writing line—a wandering much exaggerated where long words are fully spelled. For type-writing and type-set printing the aligned sequence of lettering is essential.

Sweet's lettering, then, conforms to the traditional three main kinds of characters: *Shorts,* which stand on the imagined writing line with their tops also aligned on an 'upper parallel' (like orthodox letters a e m n o u); *Talls,* which like b d f h k l) stand on the writing line but ascend well above the height of Shorts; and *Deeps,* which (like g p q y) are top-aligned with the Shorts on the upper parallel but descend well below the writing line.
This is a neat and familiar manner of writing: Talls and Shorts keep an imaginary writing line well defined, while Deeps and Shorts equally preserve an imaginary upper parallel.

Less happily, Sweet employed two more categories of lettering: one so enlarged as to be both Tall and Deep (like a script letter *f),* the other of less height than the Short letters: neither the too large nor the too little letters serving to preserve either parallel's level at all. Furthermore, Sweet's own writing distorted the small letters in order to link them fore and aft with larger letters. He held the too common belief that for fast writing the writer may only lift the pen between words.

In using Short, Tall and Deep lettering, Sweet conformed to tradition. Quite apart from any use of abbreviated spelling, he gained speed by enlarging his alphabet to spell all single sounds with single letters. That is, he used no 'digraphic' sound spellings such as *th, sh, ie, ay.* Moreover, Sweet's characters are among the simplest graphic shapes known to geometry: they are mostly single penstrokes, without dottings, crossings, or 'diacritical' markings such as dictionaries use to define a letter's pronunciation. Such markings would involve pen-lifting and hand movements additional to any required in advancing from one letter to the next. Sweet's alphabet served to spell, to write, (and could have served just possibly to type) with *simpler,* as well as *fewer,* letters than are used in orthodox English.
It was in this respect that it provided

Kingsley Read's sheet of variously styled lettering as submitted to George Bernard Shaw

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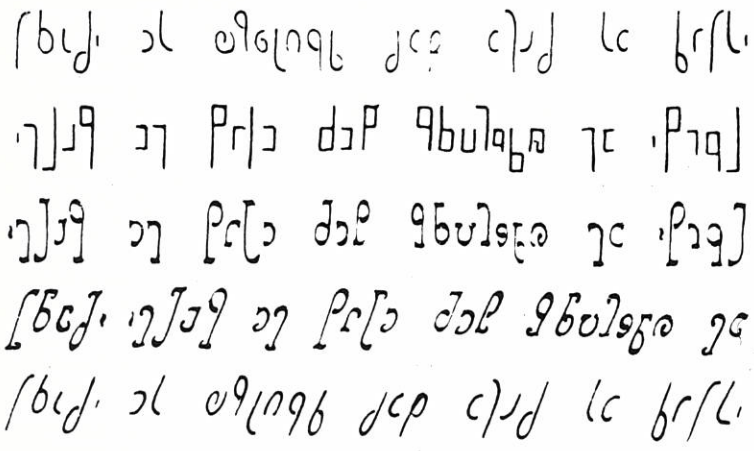
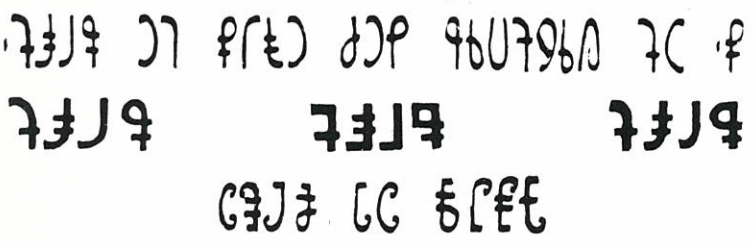
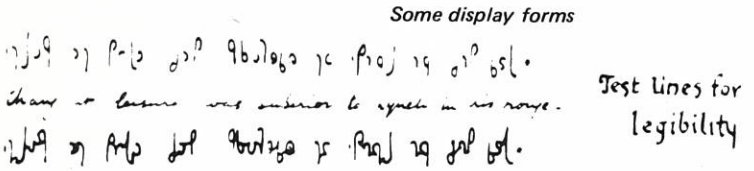
Author's address:
Abbots Morton, Worcester England



The basic forms and some suggested developments



Some display forms



Some examples of handwriting



Part of Kingsley Read's competition entry showing his proposed alphabet as used for handwriting

a crude model worth refining as recommended by Shaw: not to serve still as shorthand, but as an all-purpose modern alphabet.

Dr Abraham Tauber's book, *George Bernard Shaw on Language* (London, Peter Owen, 1965, p30) states that Shaw first met Sweet as early as 1879. It is well known that Sweet became in some measure a prototype for Henry Higgins, society speech trainer, in Shaw's *Pygmalion,* written in 1912, the year of Sweet's death.

Shaw habitually drafted his own writings almost fully spelled in the 40-letter alphabet of Pitman shorthand. He may well have found this unsatisfactory for re-reading and revision. It could spell sounds unambiguously, having an adequate number of letters. But as its script was unaligned, it certainly could not serve also for typing and type-cast print. Moreover, Shaw was very knowledgeable and interested in fine typography. At the age of 85, he appealed to 'type designers or artist-calligraphers, or whatever they call themselves, to design an alphabet capable of representing the sounds of the following string of nonsense quite unequivocally without using two letters to represent one sound or making the same letter represent different sounds by diacritical marks.' The nonsense test-piece was intended to cover all English sound-sorts and to discover designers who truly recognised them. He went on to recommend Sweet's alphabet as a suitable point of departure for his designer, (see pp26-27 of Shaw's preface to *The Miraculous Birth of Language,* by Professor Richard Albert Wilson, London, Dent, 1941).

This preface, dated February 1941 but not published till the autumn, gives Shaw's most precise instructions, though his public campaign opened with a long and important letter to *The Times* of 15th April 1941. Only years later was the letter to *The Times* made known to me, but while I was myself experimenting with a sound-spelling alphabet, my attention was drawn to Shaw's appeal in the Preface.

How many others responded seriously to his appeal I was never able to discover, though I tried. Shaw dissuaded me from contact with or influence by others. But from acknowledgement postcards he had printed, it would seem that there was no lack of misdirected proposals and gratuitous advice; for there he stated concisely what he sought and what he repudiated. Especially notable is his dismissal of all 'schemes spelling English phonetically with the old ABC.' He sought a wholly *new* alphabet—'to be used and taught concurrently with the old alphabet until one or the other proves the fitter to survive.'

He would not consider tampering with orthodox English spelling or its traditional alphabet: these were to be left undisturbed—and unimproved.

What—beyond courage—qualified Shaw to demand a new English alphabet? Though an Irishman to the last, he certainly possessed authority on the pronunciation of English. From 1926 to 1939 he served on the BBC's *Spoken English Advisory Committee.* When Robert Bridges, Poet Laureate and first Chairman of the Committee, died in 1930, Shaw succeeded him as Chairman for the next ten years. The Committee included several exponents of phonetic writing. Bridges himself had, with the help of the calligrapher Edward Johnston, produced a large and graceful alphabet. Daniel Jones and A Lloyd James, both expert in phonetics, later became professors. Sir Johnston Forbes-Robertson was, among other things, the best Hamlet of his day. Logan Pearsall Smith, with Robert Bridges, inaugurated the Society for Pure English.

By 1936, the Committee had grown to 24 members, of whom seven were senior academics. Other advisers included well-known speakers such as Lady Cynthia Asquith, Kenneth Clark and Alistair Cooke. It was therefore not surprising that Shaw developed a keen interest in creating an alphabet fully allied to speech. His association, on this Committee, with phonetic experts must surely have helped him to crystallize his own ideas for a modern all-purpose alphabet.

What were my own qualifications to further Shaw's intentions? It may be enough to say that in my teens I went with a scholarship to Birmingham School of Art and there learnt lettering and designing under the headship of Robert Catterson Smith, a one time Kelmscott craftsman; and that between the wars I designed and commercially supplied large lettering in various fashions and materials. On the phonetic side I had taken a course of speech training, and had studies several phonetic alphabets, including those of Bridges and Sweet. If I was particularly qualified at all, it was in having some practical experience, *both* graphic and phonetic. When, around Christmas 1941, I read Shaw's Preface, I was 54, old enough to back keen interest with long perseverance.

After a month's preparation I submitted to Shaw (a) a tentative alphabet of 47 letters (b) reasons for choosing them, and (c) their transcription of his test-piece of nonsense. To these I added (d) a sheet of variously styled lettering to show

The Lord's Prayer rendered in the four recorded entries for the competition: Dr S L Pugmire's alphabet, Mrs Pauline M Barrett's alphabet, Kingsley Read's alphabet, and J F Magrath's alphabet

how the alphabet might be adapted in writing, printing or display, to scribble a note or engrave a monument, to print books or make neon signs.

His printed acknowledgement post-card, dated 27 January 1942, bears an exceedingly kindly, almost excited footnote. He showed my first crude attempt to others. To my repeated enquiries for advice from him or others helping him, he only replied that I was better left to my own devices. I am aware of two or three cases in which he subsequently commended to recognized authorities my grasp of his intentions.

At his desire, in 1943 I prepared a manual with examples, entitled *Sound-writing: a method and an economy in spelling.* Shaw found it 'admirably clear', though he disliked some 'graceless lettering.'
His belief that 'for hand-writing the words must be written without lifting the pen' is one I cannot share. Schools no longer require it.
His own signature to this letter shows three harmless liftings of the pen in his name 'Bernard.'

This letter begins with advice to consult Mr I J (later Sir James) Pitman, of shorthand and publishing fame, whose experience of phonetic alphabets is unrivalled. Mr Pitman dissuaded me from immediate publication and encouraged me in further improvements of the Manual's alphabet.

In the Autumn of 1944 Shaw announced in *The Author* (quarterly journal) his intention to make a will promoting a new alphabet. He had already in a letter dated 19 July 1944, told Pitman '... so I wash my hands of the business, and leave the field open to you to do the job with a grant in aid from the Public Trustee...'
It is certain that no abler and better situated co-ordinator could have been chosen to see the task through, even if Pitman's personal leanings were more educational, less specifically utilitarian, than Shaw's.

Three years later, in 1947, Mr Pitman and Dr Daniel Jones visited Shaw to urge upon him the aims of the Simplified Spelling Society.
Their reception is related fully by Pitman in his introduction to Tauber's *Shaw on Language.*
Their Society's commitment to using none but our accustomed 26 letters of the alphabet—and consequently to digraphic spelling of sounds—was anathema to Shaw: he was adamant against it.

The Will, finally signed on 12 June 1950, does not specifically exclude the use of familiar letters of the alphabet, but it was evident to the Trustee from Shaw's published writings that he had intended the use of a *wholly new* set of between 40 and 50 characters. If further evidence were needed, it exists in Shaw's private correspondence quoting my grasp of his intentions as a guide.

The Will was wilfully made in language more Shavian than legal in so far as its clauses 35—38 dealt with the alphabet. Beginning with Sub=section 35 (1), it calls in effect for some estimate of the world's man=hours wasted in writing and printing English with an alphabet of 26 instead of 40 or more letters: and a valuation in money of those wasted hours. This impossible task was entrusted to Mr P A D MacCarthy who, having investigated, could only report that no reliable data exists for any meaningful estimate.
Sub-section 35 (2), also in Mr MacCarthy's care, dealt with trans-literation of *Androcles,* which presented a few problems mentioned in his appendix to *Androcles.*

Although Shaw's letter to *The Times,* his preface to Wilson's book, and his private correspondence refer explicitly to an alphabet for printing from type as well as for script, the Will makes no definite provision either for or against using printers' type in *Androcles.*
Clause 35 (2) provided funds 'to employ an artist-calligrapher to fair=copy the transliteration for reproduction by litography, photo-graphy or any other method that may serve in the absence of printers' type.' In brief, the Will permits, *if necessary,* a departure from normal letterpress printing. It was agreed that no such departure was necessary.

Shaw died on 2 November 1950.
It was not until royalties from *My Fair Lady* swelled the estate that his executor, the Public Trustee, could put into effect the Will's Clause 35 concerned with an alphabet.
By then this Clause had been challenged and its validity had to be tested in the High Court.
After a costly hearing it was pronounced legally invalid.

An Appeal being denied at first, Mr Pitman sought my help to implement Shaw's intentions without resort to his estate. One result worth mention was a leaflet showing the economy of letters and space made by my then proposed alphabet, compared with an orthodox type=setting. By taking the Lord's prayer as an example, the phonetic values of my lettering were evident without a key. Here I already used the alphabet which was destined to become a competition entry.
However, largely by Pitman's exertions, the dispute was settled by allotting no more than £8,300 to execute Clause 35 relating to the alphabet.
Thereupon, the Trustee announced a

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Kingsley Read originally wrote this article for the catalogue of an exhbition of his work held in the University Library of Reading. We are grateful for their permission to re-publish it here

world-wide competition to secure ideal designs for a Shaw alphabet. Though this clearly reduced my own chance of formulating it, my previous work was not unknown to the Trustee who in January 1958 persuaded me to illustrate and discuss competition requirements on BBC's programme, *Panorama.*

Clause 6 of the Trustee's 'Advertisement M 4405 V' stated that 'it is implicit in the Will and in Mr Shaw's writings' that the main object is 'saving of labour ... a means of writing and printing in the English language which will be more economical of the writer's time, of the paper and ink of the printer, and of transport and storage, yet convenience and ease of reading are of importance ... Practical problems of typography will be taken into account.'
Clause 7 adds that 'designs of shorthand codes for verbatim reporting and designs for reforming the existing alphabet by addition of analogous letters will be disqualified.'

Competitors had a year in which to prepare their alphabetic entries. I saw no reason to amend my Lord's prayer alphabet, nor to submit alternative entries. The Advertisement offered inconclusive councels on sound-sorts to be represented. I hardly believed it possible to arrive at a perfect alphabet without finally pooling the wisdom of competitor(s) and judges.

In view of Shaw's stipulated speech model, 'that recorded of His Majesty our late King George V', I went to Broadcasting House to have a number of the King's recordings played over to me. His pronunciation varied according to context as with all other speakers. I also went to type-founders— the Monotype Corporation— and consulted printers, becoming convinced that *Androcles* ought to be type-set, not reproduced from a calligrapher's fair copy as the Will permitted 'in the absence of printer's type.' I wrote to Mr Pitman on 18 November 1958 that fair= copying is superfluous. 'Worse, the very absence of type provides a gratuitous argument for opponents ... The Will provides for propaganda costs. The *fait accompli* is our best, most widely intelligible propaganda.' His reply agreed: he too had taken stock of the possibilities.

My competition alphabet was accompanied by examples, type designs, and detailed reasons for the sounds and characters chosen. It proved to be one of 467 entries, many of them from abroad. None met exactly the ideals of the judges. However, I found myself among four competitors sharing the honour and the prize. Our four entries are best compared as scripts, though hardly as typography, in renderings of the Lord's prayer reproduced in a trade journal, *Print in Britain.*

Mr P A D MacCarthy from Leeds University's Department of Phonetics, was undertaking a transcription of *Androcles* in the new alphabet as soon as one could be adapted and approved. He was therefore asked by the Trustee 'to collaborate with one or all of the four designers mentioned ... (see the Foreword to *Androcles)* to produce the best possible alphabet ...' Various revisions were considered till finally each designer's latest attempt was re-written by a disinterested calligrapher for comparison. The selectors chose mine as closest to their requirements, discussed with me a few possible alternatives, and nominated me for appointment as designer responsible to the Trustee and his adviser. My letter of appointment is dated 19 July 1960.

A month later, on 18 August, I brought to London the finished Shaw Alphabet. It was fully discussed with Mr Pitman and with Mr J T Harrison (of Stephen Austin and Sons, Hertford, who produced type and printed *Androcles)* and it was adopted by the Trustee. I then proceeded to make die= cutting drawings—30 times print size—in three distinct styles required for stage directions, the names of speakers, and the dialogue.

Mr MacCarthy was by this time transliterating the play while on secondment to Lahore University, Pakistan, and a good deal of printers' proof revisions fell to me. New and old versions of the play were printed on facing pages, matching exactly *line for line,* without either overrunning the other. The task of securing tolerable typographic spacing was not easy. An edition of 40,000 paperback copies was issued commercially by Penguin Books Ltd. Their refinements of typography in the orthodox version inspired me to emulate it in the new alphabet. Our joint result was chosen as one of the National Book League's 'best printed books of 1962.'

Apart from this Penguin commercial edition, the Trustee distributed gratis to all Head Public Libraries of Britain, the Commonwealth, North and South America, and to all National Libraries of the world, a total of some 13,000 hard-back copies which should still be available.

The Shaw alphabet itself, and both editions of *Androcles,* were published on 20 November 1962, with a press conference and publicity on television.

No-one needs to know the new alphabet to see immediately that *Androcles* demonstrated a marked economy; for the lines of its orthodox text are exactly 50% *wider* than matching lines in the Shaw Alphabet. Normally, line-widths would not be shortened; but books in the new alphabet would occupy one-third fewer pages, using that much less type and ink; they would be lighter for handling, transport and shelving, and a good deal cheaper. Questioned in the press conference as to cost, Mr Harrison replied that his type-cutter and type-setter had used no unusual procedures or machine. Except for its novel letters, it was a perfectly normal type, normally printed.

It is also immediately clear that the new letters are consistent in their sound writing. As to economy in printing, rather less than half of it comes from the single-letter representation of single sounds—ie from avoiding digraphs: more than half comes from simpler and narrower lettering.

Since that day, it cannot be said that alphabetic economy is technically 'impossible'—or even difficult. The *fait accompli* proves Shaw's point. A transliteration of part of Lincoln's Gettyburg address exhibits good typography in the Shaw Alphabet. An article on the new typography was commissioned by *Indian Print and Paper,* a Calcutta trade journal.

For my part I was determined to carry the accomplished evidence further,—further than the Will specifically required. Throughout 1962 I had been preparing plans for a Shavian typewriter, and on propaganda grounds the Trustee accepted quotations obtained from Imperial Typewriters Ltd, Leicester. The special letters were cut for around £70 and thereafter a normal portable machine (44 keys, 88 characters) was available at the current catalogue price of £29. The Trustee provided Mr MacCarthy and myself with the first two such machines. Again there were no technical problems. The keyboard not only carried the Shaw Alphabet, numerals, punctuation marks and sundry signs; it retained Roman capital letters for orthodox addressing of envelopes.

I used my Shavian typewriter to produce a quarterly journal called *Shaw-script;* for correspondents who sought more reading practice than *Androcles* gave them. The original typescript was reduced and offset printed by Rank-Xerox Ltd, Birmingham.

We needed practical evidence that all sorts and conditions of persons, at home and abroad, can easily learn and write and spell with the Shaw Alphabet. Such evidence depended upon an organised correspondence invited by Sir James Pitman on page 16 of *Androcles.* By the time his invitation was published, he had become so fully engaged in other activities that he sent me an SOS. If correspondence was to be organised at all, I must do it.

I accepted the task with an entirely free hand, for it was possible that minor problems, unforseeable by theory, might emerge from the alphabet's use by persons of all sorts, ages and dialects. A *Guide to Shavian Spellings* was prepared and I awaited results. Experience thus gained, being largely technical, is detailed elsewhere. Enough to say that Londoners, Scots, Americans, while raw beginners, regarded their personal speech as the 'proper' English, but were contentedly conforming in a matter of weeks to the printed spellings of *Androcles* and the journal *Shaw-script;* for a ready conformity saves thought and meets readers' expectations.

It was observed that unskilled or hasty scribblers wrote no less decipherably in the new alphabet, but that four of its characters tended to be malformed grotesquely.

After four years of handling correspondence it seemed clear to me that some graphic and phonetic changes in the alphabet would increase its already striking facilities. With this—possibly unique—practical experience to go on, it seemed a duty to implement it in a final alphabet, one differing even less from the now unalterable Shaw Alphabet than that had differed from Sweet's.

So, with help and encouragement from writers willing to test changes rigorously in circulated correspondence, I gradually evolved the 'Quickscript Alphabet.' Its manual, issued late in 1966, is in the British Museum Library, the Library of Congress and elsewhere, including Reading University Library (where the technicalities and history of these alphabets is documented).

It is to be doubted whether the Sweet-Shaw-Read line of evolution can go much further. Its use is learnt with ease. It enables both script and print to be done with marked economies. If research establishes the greater efficiency of a modern alphabet in advance, another generation may see it 'used and *taught',* as Shaw hoped, 'concurrently with the old alphabet until one or the other proves the fitter to survive.'

Concerning signposting

Paul Mijksenaar and Gerard Unger

Translated by Marijke Singer

Paul Mijksenaar originally trained as an industrial designer. Since then he has worked in both industrial design and graphic design. He is Chairman of the Applied Art section of the Arts Council of Amsterdam. He is also a member of the Dutch Commission NEC 3C (signs for apparatus) and of ISO/TC 145 which is concerned with the international standardization of graphic symbols.

Gerard Unger trained as a graphic designer. Following work for a number of organizations he set up a free-lance practice in 1970. In collaboration with Joh. Enschede and Sons he designed the typeface 'Markeur' for engraving on plastics and metal plates, together with a signing system.

In 1972 Paul Mijksenaar and Gerard Unger went into partnership, forming a design consultancy called Sign Design *specialising in the problems of signing and situated in Amsterdam*

The demand for efficient signposting is increasing, particularly in our newly built-up areas.
The reasons why signposting has not evolved naturally with building of the environment can possibly be explained by the fact that good signposting requires equally the influence of architecture, traffic technology, sociology, planning and typography. Only when all these factors are integrated can we speak of a successful solution.
To achieve this, it will be necessary to effect fundamental research on all fronts. Such research, if it were made generally available, could contribute to a reduction of human error. Human error of the kind that has been a direct cause of fatal accidents.
The first part of this article is intended as an introduction and an attempt to outline the complex field of signposting.
The illustrations and notes which follow this text attempt to provide details of the basis of our visual and non-visual communication.

From a report on heart treatment ...
"... Within the grounds of the Academic Hospital the route to the Heart-Care Unit has been very badly signposted. The ambulance driver has to get out of the ambulance to ask the way. The patient's condition is serious but not deteriorating. We arrive at the correct entrance but nobody is available to attend to the patient. Nurse H. enters the building but she too has to ask the way. Corridors, corridors, corridors ... "
Nieuwe Revue, 41/1972

In the last few decades, enormous increases in the scale and consequent changes of emphasis have taken place in our society. Newly built-up areas as large as cities; enormous increases in traffic volume and traffic speed; gigantic buildings like hospitals, stations, airports, banks, civil service buildings, and so on, are concrete examples.
The result has been that it has become impossible for human beings to find their way about in the normal way. As a driver, stopping along the road and attempting to determine which way one should go, has become a lethal activity. In newly developed areas one seldom meets an accidental passer-by and, when one does, his knowledge usually stretches no further than a few streets. Large buildings are rigidly designed mazes, where often the people who work in them do not know the way.

In these changed circumstances, signposting becomes a key part of our environment—it can contribute towards an architecture in which a human being can recognise himself more readily.
The growing compexity of our society, with its powers to both centralise or de-centralise, at urban or inter-urban, national or international levels, makes some kind of structural approach a necessity. (For example, the sign to the first-aid department of a hospital must be basically the same in Groningen and Middelburg, London or Amsterdam).

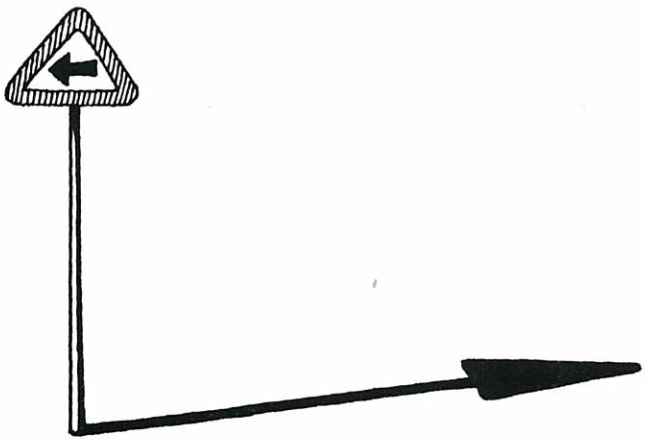
The purposes of signposting

There are two main aims for signposting.
Its primary function we would define as follows;
To indicate the best route to those people who wish to reach, in one way or another, a predetermined destination.
(Definition Sign Design, 1973)
Its secondary function (wherever possible, combined with the first) is to;
Identify and define objects, for both administrative and organizational purposes.

In signposting we differentiate between the following elements:
The user, the aim or object, the means of travel, the route, the information and the environment.
1
The user can be categorised in a number of ways. For example; visitors, residents, service personnel, government personnel, women, men, children, adults, invalids, aged, foreigners, etc.
2
The aim will usually be a place where one or more human beings reside. It is important to know what knowledge the user has prior to setting out on his journey. Does he know the name, function, room number, department, floor, street number, street name, city area? It is vital to research these matters beforehand.
3
The method of travel can be by means of private or public transport, aeroplane, train, bus, taxi, car, motorbike, moped, bicycle, or on foot: inside or outside, by night or by day.
4
The route can lead along roads, towns, districts, streets, terrains, buildings, steps, floors, corridors, rooms, etc.
5
The information. It is clear that the user (traveller) has only one concern; to reach his destination as speedily and effortlessly as possible.
The information he requires to trace his route must, therefore, be kept to a minimum. In other words, the fewer notices the better.
6
The environment. Landscape and architectural surroundings affect signposting and vice-versa.
The aesthetic element becomes more critical to the user as his functional needs diminish. This is the case, for example, when the inhabitants of a certain district know their way about and no longer need the existing



One of the aims of sound signposting is good visual organization, which goes beyond the mere application of formal rules or legal by-laws. How things can go wrong without this is obvious from this photograph of the Ohasi Bridge in North Kyushu, Japan. Photograph by Associated Press



icographic 7, 1974, pp 12-14
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signposts. They do, however, experience more acutely the design and appearance of the notices. High aesthetic standards must be set for signposts if they are to permanently enliven our environment.

The secondary function of signposting—identification and definition of objects—is particularly important for purposes of registration, maintenance, replacement, control, delivery, etc, by government authorities, such as council services, energy departments, police, fire brigade, postal services, as well as internal services.
Objects can be, for example, buildings, installations, garages, dwellings, towers, staircases, lifts, toilets, waste-disposal shafts, corridors, doors, spaces, etc.

Signposting can also be used to provide additional information, such as distances, instructions for use, functional differentiations, etc. Signposting must be clear, uniform, and brief; logical, self-evident, appropriate and flexible.
(points taken from the Intergemeentelijke contactgroep uniformering bewegwijzering).

Media

Naturally, one immediately thinks of notices, traffic signs, directional notices, street nameplates, etc. Notices at crossroads, streets, in corridors, on stairs and on doors. On such notices we use text, letters, colours, symbols and signs. Complementary media are road maps, plans, train, tram and bus guides.

It would seem that for the immediate future notices and maps will remain important items in any signposting system.
They are, however, a traditional method rather than the result of an analytic and systematic approach. For instance, a map displayed at the entrance to a town or district is, in reality, a strange solution to the problem. It employs an unusual view (a bird's-eye-view), rather than some form of realistic situation drawing.
Many people find it difficult to establish a connection between a map and reality. It might be possible that one well-informed guide would be a more functional and economic solution than any signposting system, since in many ways our normal speech is still the most complete communication system.



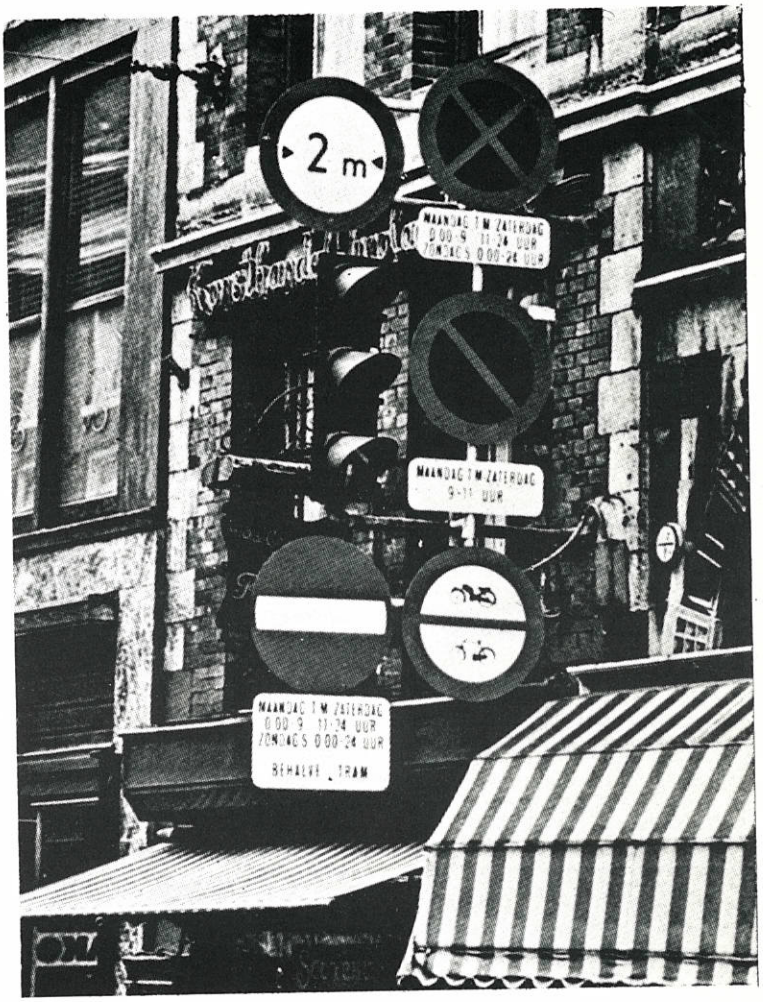
There are many indications that audio-visual aids will become increasingly important as instruments of communication. Sound (telephone, speech-poles, recorders, etc) light, projection, television, film, photography, 3-dimensional design, etc, in their most modern form can be incorporated into signposting.
These aids will be of differing value in differing situations.
For example, we can use the colour red on a book-jacket without hesitation. On the factory floor or in the street, however, the same colour would have distinct functional connotations (Danger, Stop, etc).
A display letter which might be tiring if used to set the text of a novel, might yet look extremely effective on a large building.

In signposting, criteria have to be established for the use of audio and visual aids. Some criteria can be taken directly from other fields (drawing, painting, typography, architecture, traffic technology, etc). Others still have to be established. Consequently, research in some depth is needed to arrive at an effective organization of audio and visual means.

Signposting as a communication or information system

Letters, words, numbers, symbols, signs, pictures, sounds, all belong to different communication or information systems.
Every system has its own elements which can be compared to the signs, words, sentences, syntax, semantics of our written and spoken language. It is probable that some of the rules of the science of language are applicable to visual communication systems.

The language of signs and symbols (semiotics) offers a dynamic basis which is continuously changing.
—Communication can be separated into its productive aspects (speaking, writing) and its receptive aspects (listening, reading).
The receptive aspect (observing, interpreting, understanding and reacting) demands as much effort as the productive aspect.
—To effect meaningful communication, the following play a part: knowledge of the language (code), understanding of the purpose, knowledge of the context and knowledge of the situation.



In the Leidsestraat in Amsterdam one can see this extraordinary build-up of signs. It is obvious that in a major city restrictions will have to be placed on parking, traffic routes and directions, and loading and unloading. But the signs relating to these are larger than is necessary for the purposes of legibility and recognition. They are, after all, symbols that are internationally known.
The information relating to times and exceptions to the rules is poorly signposted, however. Lower case letters would have been preferable, the type is ill-chosen and the inter-line space is insufficient

—Signposting fulfills functions which are partly expressive, partly appealing, partly descriptive/directive.
The first defines the expression of atmosphere and environment; the second aims at eliciting some specific reaction (Beware! Change direction, Stop, etc) and the last serves to *identify* specific points; to *explain* specific points, and to *direct* towards specific points. (Categorization proposed by the German psychologist K Buhler, 1934).

How does the human being orientate himself?

Something about which we still know remarkably little is the human orientation system. We know that people, once they are familiar with a particular route, will describe it by giving details as to the landscape and particular landmarks (such things as a bend in the road, an intersection, a particular building, a bridge, a river a railway crossing, a traffic-light, woods, a kiosk, etc).
We might call these "natural" elements in signposting, as opposed

to "artificial" elements, such as notices.
It ought to be obvious that the use of "natural" elements would be of advantage to any signposting system. People would find their way more easily and it might be more economic. Architecture, too, can be thought of as a "natural" element in any proposed signposting system.
It is, therefore, of great importance that signposting is seen as an integral part of the total architecture.
The so-called "artificial" signposting would then only be needed when the differentiation between architectural elements falls short or is non-existent.

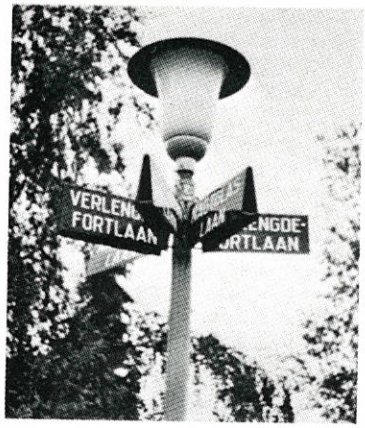
Pinpointing the object

Natural elements are not enough to pinpoint the final object. Notation would be too difficult for mechanical and administrative reasons.
For practical reasons we will pass over a number of theoretical possibilities and instance the address= coding system which is to be introduced throughout Holland in the near future.
It is based on a 9 digit system, where the digits in sequence indicate: region (Holland will be divided into 9 regions), place name, district, area, street, and dwelling. By subdivision into areas and districts the system becomes very suitable for advanced traffic-guidance-systems which, together with postal delivery, was one of the reasons for its unanimous acceptance by all government departments.
The maximum of 9 digits makes the system very suitable for punch-cards. There are, however, psychological disadvantages. If the code number is damaged it loses all meaning.
In communication theory, the expert speaks of "noise" and "redundancy." That is to say, that as part of the process of coding, transmitting and decoding of a message, disturbances can occur which lead to faulty interpretation. Some words have additions (redundancies) which are not strictly necessary to their meaning but if such redundancies are deleted the chances of misinterpretation increase. It is preferable, then, to have a sign system which is not dependent on a single code and which provides safeguards at critical points.

In the field of signposting a few very good solutions can be found.
There are, however, few solutions which can be called completely satisfactory from the point of view of those scientific areas concerned with human communication and behaviour.
These areas include, for example, psychology, perception, sociology, linguistics, etc.
Optimum solutions will not be possible until advice is sought from those active in these fields.
The search to determine the correct form; the right combinations of various aids and techniques; the finding of a satisfactory compromise between the theoretical ideal and practical needs, has thus become a specilised activity for present-day professional designers with an interest in this particular field.

Costs

However ideal some solutions may appear in theory, almost inevitably cost will determine the final product.
Signposting is, without doubt, very expensive.
For each problem the demands of design, advice and manufacture are very different.
Standardisation and unification are always difficult to achieve.
Sometimes within a single project all the notices may vary.
Some good results have been achieved, however, such as meticulously designed gravure systems with specially designed type faces.
Even so, a sound signposting system should not be more expensive than a satisfactory sanitory system, and its role is certainly no less important.
Some influence on the overall costs are as follows:



A rather clumsy, but sympathetic 'village' solution is this street-lamp promoted to signpost in Bussum.
It has the advantage that the notices are lit from above during the hours of darkness

a The complexity (ie of the building)

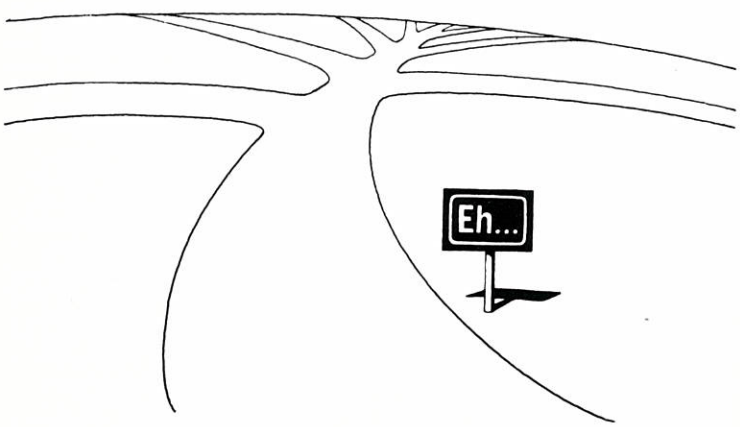
b The surface area to be signposted in cubic metres

c Number of users (visitors, employees, etc) and the frequency of use

d The application—indoors or outdoors, fixing possibilities, flexibility, follow-up and maintenance, service, lighting, etc.

e Integration into the architecture at an early stage, since this offers advantages in terms of lighting and fixing possibilities.

A carefully thought-out system is, however, costly, but the costs are of a once-and-for-all kind.
Subsequent alterations, improvements, repairs, extensions, etc, do not need to be more expensive than the costs of materials and construction.
By means of a handling manual such matters can be carried out within the organization itself.



Signposting and communication media

Paul Mijksenaar and Gerard Unger

Translated by Marijke Singer

icographic 7, 1974, pp 15-21
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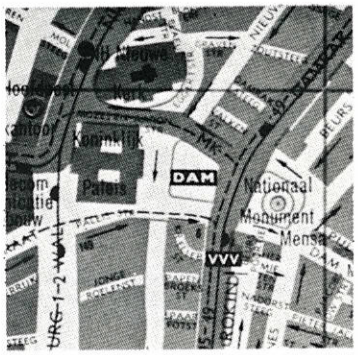
Our previous article on signposting was devoted to establishing fundamental points. In this second part we will give a short summary of the visual and non-visual media that may be of use to signposting.
The illustrations have been selected from various sources and, in some cases, specially designed.
The explanatory texts provide a certain amount of background information, designed to demonstrate that visual expression in human communication systems is subject to certain laws.
Non-recognition of such laws when using various communication media can lead to misunderstanding and confusion.

Plans, guidebooks and maps provide a familiar part of travel information. One of their main advantages, apart from the ease with which they can be handled, is that they can be consulted prior to a journey.
It would seem logical, therefore, that details on the plan corroborate details encountered in reality.
In addition, the manner in which the details are mapped could be standardised.
At the moment, there are considerable differences between countries, publishers and government departments.
Here are some examples:

The most widely used city-map in Holland (Amsterdam), which can be bought in virtually every kiosk or bookshop. An enormous quantity of detail has been combined. Important routes are marked in yellow (not shown here), which creates the impression that these can be followed more easily. In reality, there is no way in which one can differentiate between those streets marked yellow and those which are not. Certainly they are not covered in yellow asphalt!
(Publisher NV Falkplan/cib)



Here, an original aerial photograph has been made into a plan, where even canals and trees have been coloured in. Obviously, this leads to an excessive amount of detail which makes it almost impossible to use. The plan seems more of a gimmick, rather than a useful tool.
(Publisher R Nicholson Publications, London)



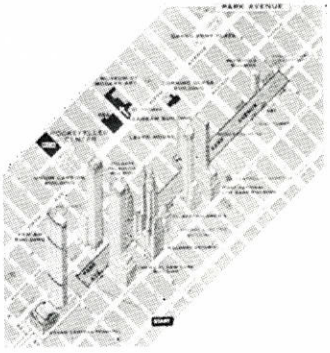
The advantage of a drawing over a photograph is that it can be more easily censored. The draftsman can leave in only those details which will be of use. The disadvantage of this particular drawing is that because of the use of perspective, the smaller streets are overshadowed by buildings. Only by means of exaggeration, with consequent inaccuracy, can this be overcome.
(Publisher Bollmannkaart nv, Falkplan/cib)



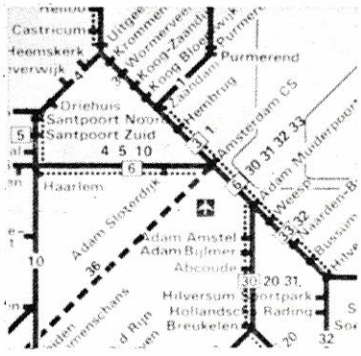
Comparable to the first example, this is a city-plan of Calgary in Canada. Striking is the fact that the streets are indicated by a single line. Buildings are not indicated.
The result is a clear picture, which is particularly suitable to motorists.
(Publisher Texaco-R. Clark Stone, Toronto)



A fine example of the combination of vertical plan and drawn bird's-eye-view. This is part of New York from the Michelin Guide. Only relevant buildings are given.
(Publisher Michelin Tire Corp., New York, USA)



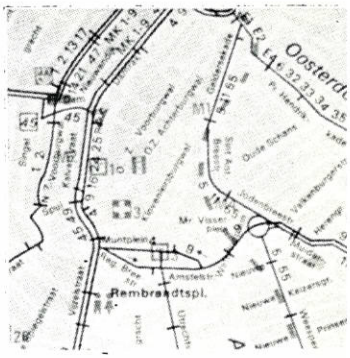
A diagrammatic approach is often used for reasons of clarity and readability. This map and each of the others which follow has been originated by a public authority



A London Transport map which shows the road system and the numbers of the buses which travel along them. Streets which do not lie along a bus route are not named, so that a reasonable knowledge of the city is needed



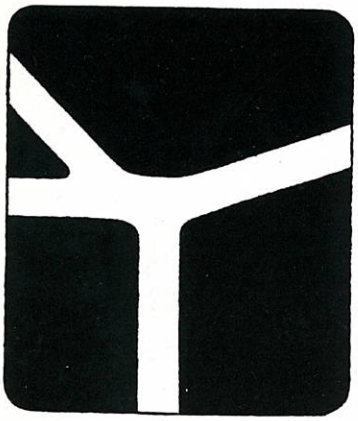
Comparable to the previous two examples, this is the Amsterdam Council Public Transport map. Buses are marked in black, trams in red. The map itself is a normal typographical city plan, with reduce detail

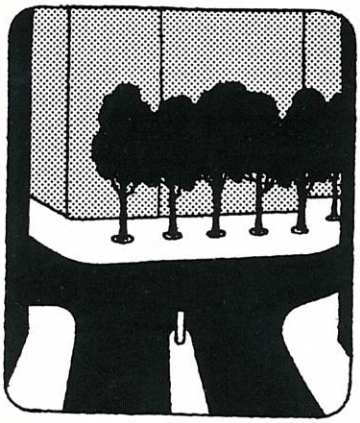


This map for the London Underground was already developed before the second world war and is justly famed.
Contrary to the previous examples, no attempt has been made to link the diagram to reality. The only poin of orientation that has been retained is that of the River Thames.
A disadvantage is, perhaps, that it is hard to estimate actual distances for a particular journey



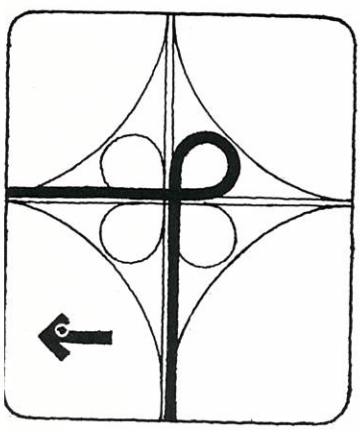
The great advantage of a graphical plan is that in one single glance a great deal of information can be obtained—information that would also be impossible to obtain in real life, in similar fashion.
This example shows that by following a turning to the left the road will then subdivide.
Such information would be impossible impossible to predict from a real-life situation, as shown in the drawing below. Nevertheless, this drawing gives more information as to the



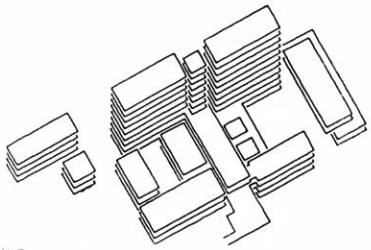


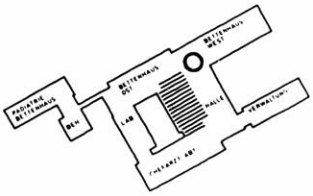
'identity' of the crossing, such as the buildings, trees, etc.
Obviously, the function will determine which image and which method should be employed

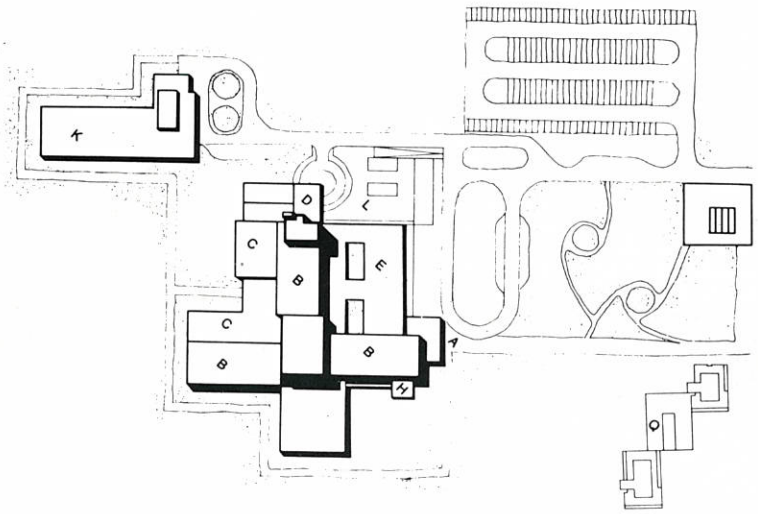
One of the problems of modern road systems, particularly at intersections, is that one cannot 'navigate' in the familiar way. If one is driving north on this cloverleaf, but wish to turn in a westerly direction, then one must leave the road in an easterly direction and turn back. If, too late, you discover that an error has been made, do you know how this can be corrected?



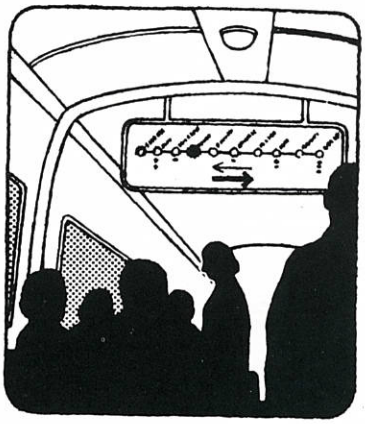
Architectural drawings are often helpful in signposting systems, as are architectural models.
The upper drawing shows the number of floors and their interrelationships, whilst the lower drawing provides a helpful view of the building complex and the terrain





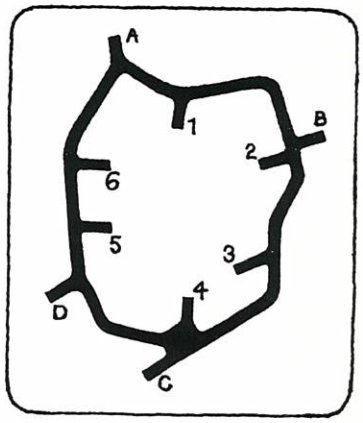


"Tramline 12, get off at the 4th stop." Such indications would be of great help. Within the bus or tram the stop number could be indicated by a light on an overhead map. The direction of travel could also be shown. All this would avoid the need for panicky questions and excitement.
The lower drawing shows the stop notice belonging to this system





The numbering of routes and of intersections is a good method of enabling the traveller to do without a large amount of data on intermediate towns and villages, etc

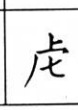
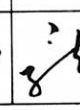




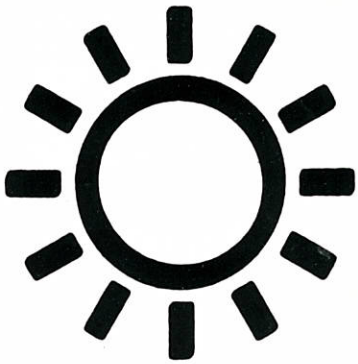
The rapid advance of technology which has led to the development of a wide range of human aids, has also caused a need for methods which will provide information quickly, simply, and unambiguously.
International usage makes it impossible to use national languages. One solution could be the use of more visual signs and symbols. These must not refer to phonological systems—the sign must be international, not linked to any local or cultural meaning.
Even this well-known pictogram (public telephone) is not totally satisfactory and is certainly not timeless. Only when the implement has been standardised can this type of illustration be effectively used



This shows the development of Chinese script from pictograms to script-signs. Script-signs derived from pictograms form only a minority of the Chinese language. The aim of a pictogram is not illustration, but the communication of a certain message by means of a thought-complex. This, when changed into speech, can then take on a variety of forms.
When separate pictograms become part of a total sign-system (as in sentences), their relationship to their original meaning is lost and they can be thought of as language-signs

	REGULAR FORMS		SCRIPT FORMS		
	TIGER	DRAGON	TIGER	DRAGON	
ANCIENT GRAPHS ABOUT 2000 B.C.					
SHELL-AND-BONE CHARACTERS jiǎgǔwén ABOUT 1400-1200 B.C.					
GREAT SEAL dàzhuàn ABOUT 1100-300 B.C.					
SMALL SEAL xiǎozhuàn 221-207 B.C.					
SCRIBE CHARACTER lìshū ABOUT 200 B.C.-A.D. 200					DOCUMENTARY SCRIPT zhāngcǎo ABOUT 200 B.C.-A.D.1700
STANDARD CHARACTERS kǎishū ABOUT A.D. 100 -PRESENT					RUNNING STYLE xíngshū ABOUT A.D. 200 -PRESENT
SIMPLIFIED CHARACTERS jiǎnzì ABOUT A.D. 100 -PRESENT					SIMPLIFIED SCRIPT CHARACTERS liǎnbǐ jiǎnzì ABOUT A.D. 100 -PRESENT
					"MODERN" SCRIPT jíncǎo ABOUT A.D. 300 -PRESENT
					ERRATIC SCRIPT kuángcǎo ABOUT A.D. 600-1700

This stylised sun was, we thought, an example of a good universal sign. We have subsequently learned that it is not as universal as we had imagined



This symbol for 'radio-activity' is an example of a completely arbitrary choice of sign, lacking any effective semantic relationship and forming no part of any syntactic system, such as traffic signs, mathematical symbols, etc



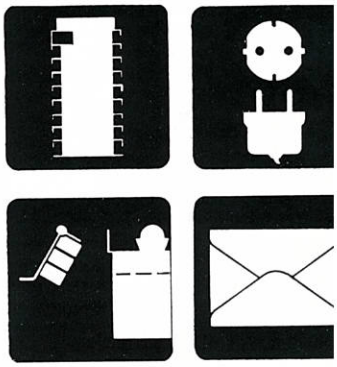
All forms of communication possess 'noise' which can lead to misunderstanding.
The chances of misunderstanding can be reduced by providing the 'message carrier' with a measure of 'redundancy' (ie extra information which does not change the original message, but merely augments it). Because of this a realistic image, such as the one shown on the right, is often preferable to a stylised image, as indicated on the left



The problems of non-verbal communication are made obvious by this cartoon from The New Yorker. *An audience needs a great deal of information regarding context.*



New forms of living can lead to very different arrangements of dwellings and services. These pictograms have been designed for parking garages in the Bijmermeer in the Netherlands. These form a central part for both residents and visitors. Since living accommodation and services are not standardised, the pictograms have to be self-explanatory. Whether they are, or not, is doubtful, as can be seen from these examples



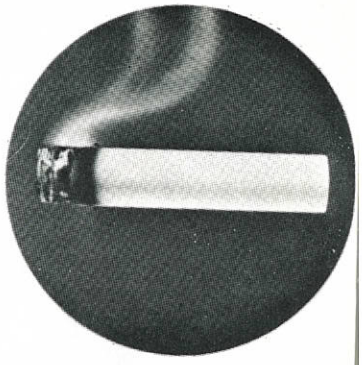
Mijksenaar, Unger: *Signposting and communication media*

A number of pictograms have been devised for the various Olympic Games. Shown here are the ones designed for 1948, 1964, 1968 and 1972, each aimed at describing the sport of wrestling. Because their purpose is the same, it is interesting to compare them. We have to assume that their users are given sufficient opportunity to learn their meaning because of the narrow circumstances under which they will be used.

In this series one can detect that the attempt to depict as realistically as possible the contest involved, gives way to subsequent simplification in order to improve visual qualities, legibility, and unity with other symbols
(from Symbol Source Book, MacGraw-Hill 1972, USA)



A nice example of altering an existing symbol is provided by this cartoon by Ad Werner. Naturally, if you enter from the correct side, you are allowed to smoke
(Publisher Proost Prikkels no 235 Spring 1973 Proost and Brandt NV)

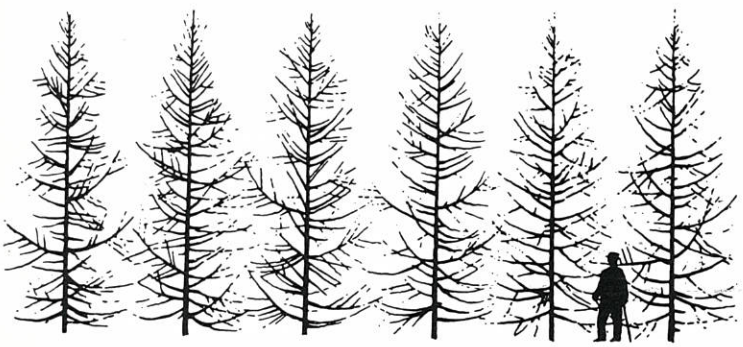




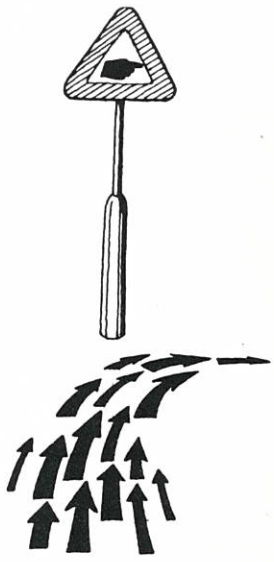
These pictograms were designed for use in hospitals in New York. Because of the 'multi-language' occupants of these hospitals, some non-linguistic solution had to be found. The symbols have to be used only within the grounds of the various hospitals, which means that their meanings could be taught to the occupants. But with visitors, there are problems. One can also object to the degree of abstraction employed. Indeed, one is led to question whether the various subjects lend themselves to abstractions of this kind. It would seem more appropriate to use more arbitrary symbols, or more universally known signs that might allow for greater abstraction.
(from Symbol Source Book MacGraw-Hill 1972 USA)



Watch out! Bicycles colliding!



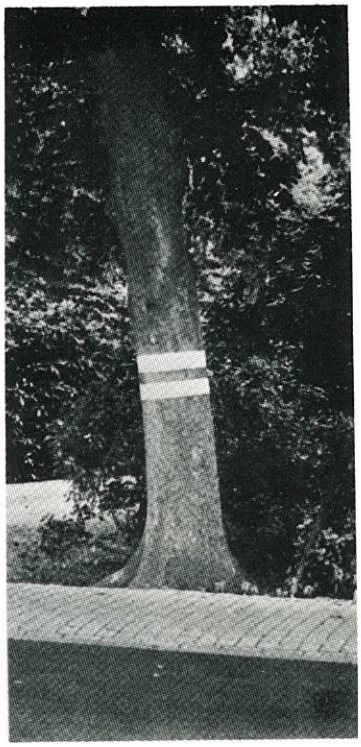
By means of pre-determined changes in vegetation along roadsides, it is possible to combine the pleasant with the useful.
A simple indication, such as 'follow the lane of pine trees' might be sufficient and could render a signing system of official notices redundant

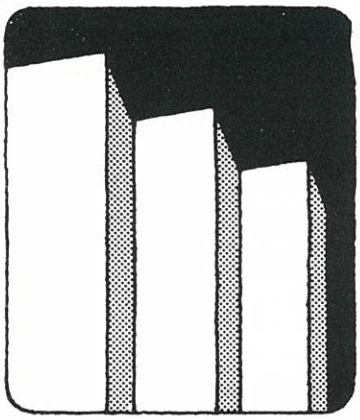


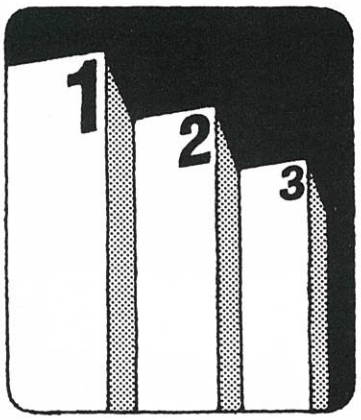
Because many South African mine-workers are unable to read, this cartoon was devised to persuade them to leave the rails free of stones. However, it did not work— increasing numbers of stones were found on the rails. The cause, it was discovered, was that the miners tended to read the message from right to left, and so they helpfully complied and took the stones out of the wagons!



Natural elements can be used within built-up areas to ease recognition and orientation



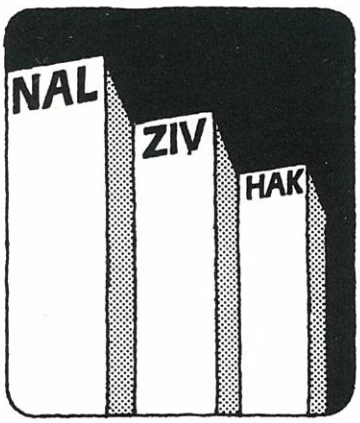


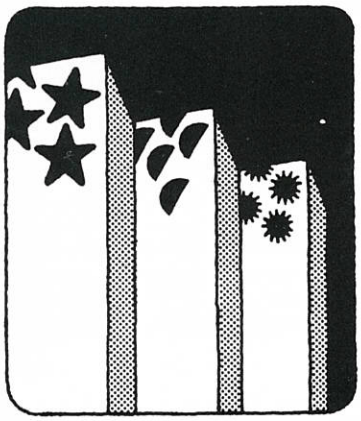


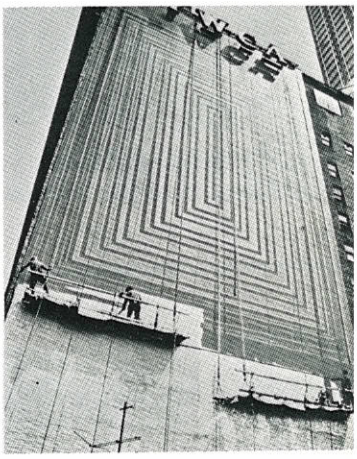
Repetitive uniformity in new built-up areas can often make it difficult to identify a specific unit.

This problem might be solved by visual means and, at the same time, relieve the pattern of uniformity, which many people find unpleasant. Our illustrations show the use of numbering, naming, and the use of symbols.
One might also think of using colour, or three-dimensional objects, etc.

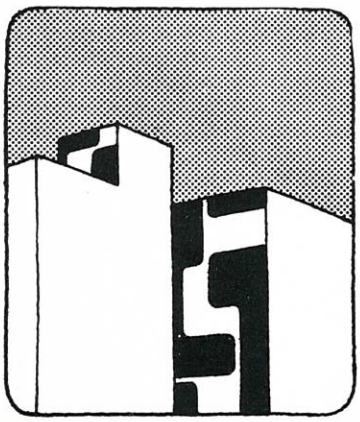
The lower pair of illustrations are designed to show that by providing graphic or spatial objects one can increase recognition very simply

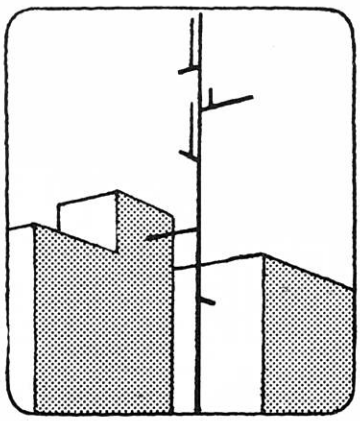




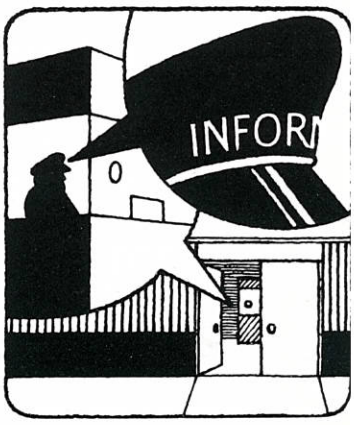


This mural was put on the wall of a meeting centre in New York, to increase recognition whilst helping to break the monotony within the neighbourhood.
(from Graphis 163/1973, Wlater Herdeg, Zurich)

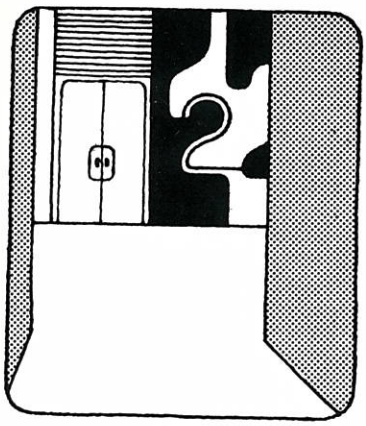


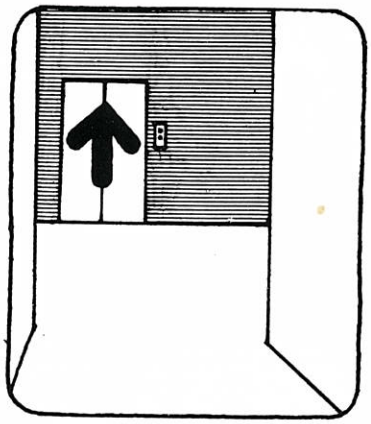


As long as verbal communication remains superior to other forms of communication, a well-informed porter or receptionist is often a more satisfactory solution. Remaining signposting must, in such cases, be geared to the needs of the porter or receptionist



The concept of 'murals' can be given new impulse by providing them with a functional role as part of a signposting system.
Sometimes, paintings executed under this heading, are labelled 'Super-graphics.'
The first two illustrations are meant to show how a floor number and a lift might be indicated.





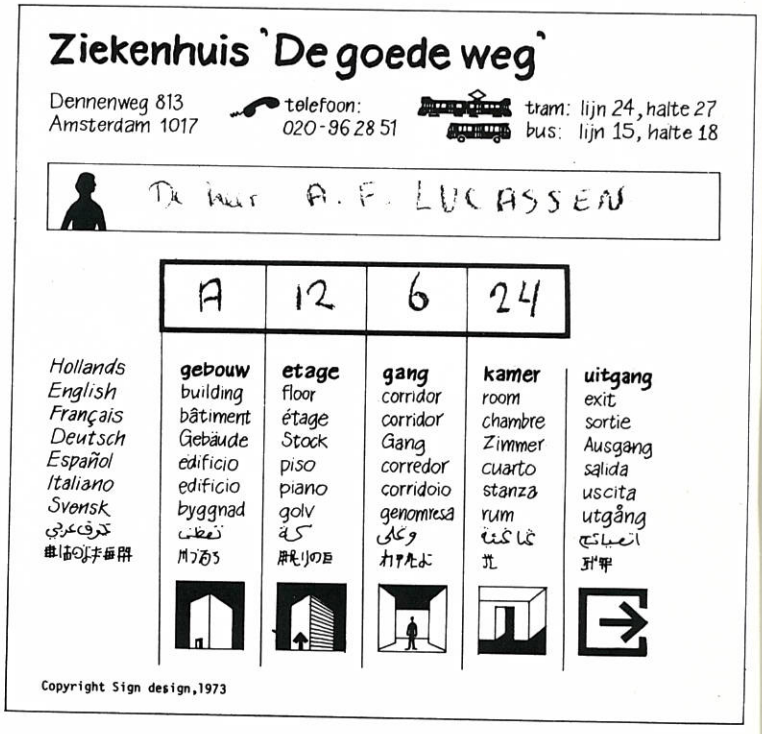
A group which are often unwittingly discriminated against are the handicapped. Sounds, for example, could be used as effective aids to the visually handicapped.
This drawing is meant to show how various kinds of musical sounds could be employed (ie violin, piano, oboe, flute, etc) to enable blind people to orientate themselves



The introduction of dwelling code would open up the possibility of introducing the route-cards shown here.
Since the number code indicates a space, rather than a person, the sign-posting system could be permanent.
To use such an abstract system, however, might have some problems.
Recognition of the emotional needs of the traveller must be a major consideration in any flexible system of guidance. But that such guidance must have a rational foundation is self-evident

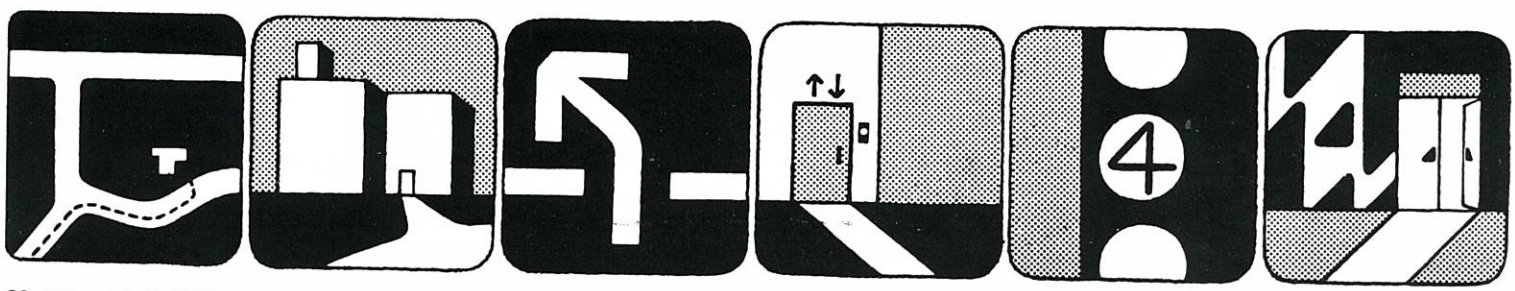


Many industries with signposting problems, possess computers of some kind for administrative purposes.
It would be possible, therefore, to provide the receptionist with a 'picture station' which would allow her to call up information concerning rooms, corridors, floors, buildings, route to be followed, etc.
A further advantage would be that information could more easily be kept up-to-date.
Photograph IBM

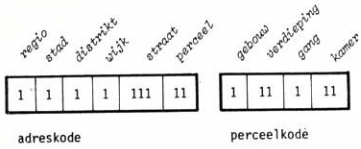


A strip cartoon is an attempt to tell a story by means of visual imagery.
In addition to the non-verbal quality, there is a condensed amount of detailed and exact information.
Having been undervalued initially, the strip cartoon is becoming increasingly popular. Manufacturers are using it more and more to explain usage, assembly instructions, etc. Strip cartoonists have developed a wide range of techniques which can successfully project many aspects of human communication.

The strip cartoon below shows how an address might be found more easily in a specific city.
The strip cartoon shows the street in which the particular building is sited; where the entrance is; where the lift is; the floor number and, finally, the correct corridor



Shown below is a suggestion for coding dwellings.
The nine numbers on the left form the address code shortly to be introduced within the Netherlands.
A similar system could also be employed to designate rooms within a particular dwelling.
The national address of our example would read:
111111111–111111

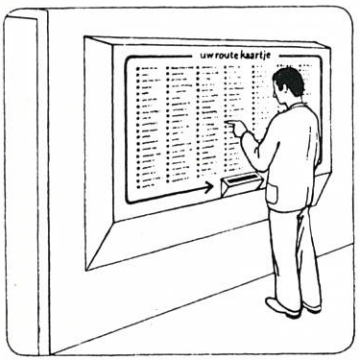


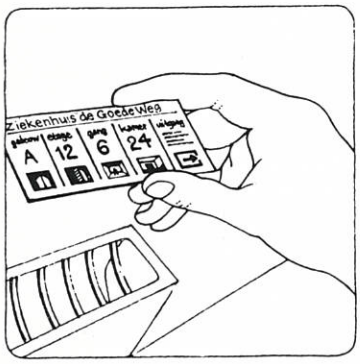
Circumstances, materials and techniques, make particular demands on typography and letterforms.
It is untrue to suppose that 'norms' mentioned in books on 'normal' typography are applicable in general.
Shorter observation times, under more difficult circumstances, as well as the more permanent character of the sign, ask for solutions of special kinds of typefaces.

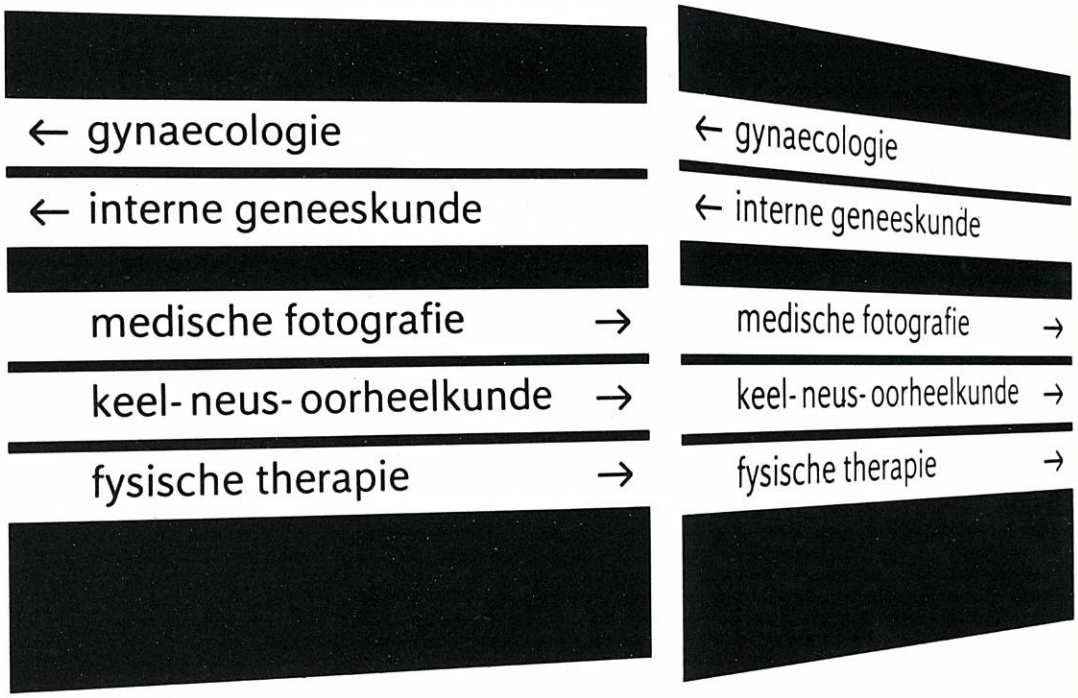
An example of such a typeface is this design developed by Lettergieterij Joh' Enschede and Sons at Haarlem, and named 'Markeur.'
Based on the demands of engraving on plastic plates, specific attention has been given to readability at a distance and at angles of vision of less than 90°

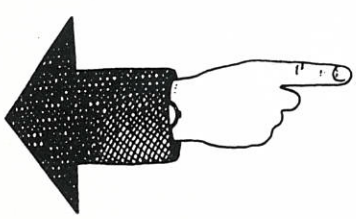
ABCDEFGHIJKLMNOPQR
STUVWXYZÆ&
abcdefghijklmnopqrstuvwxyzij
1234567890
%().:;?'‘° ~ ¨ ´ ` ˆ ¸ ·· //--+——→←↑↓

The next step, following the introduction of route-cards, might be the installation of route-card machines in large buildings. A push on a button produces a ticket with all the necessary information









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3 *Communicatie in onze wereld,* J Aranguren, Serie Wereldakademie, W de Haan/J M Meulenhoff, 1967

4 *General principles for the formulation of graphical symbols,* Publication 416, International Electrotechnical Commission, Geneva, 1972

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6 *Symbol Sourcebook,* H Dreyfuss, MacGraw-Hill, USA, 1972

7 *Typografie bij bevegwijzering,* P Mijksenaar, Graphicus Revue 3, 1971

8 *Anthropology and Glyphs,* Margaret Mead, Print, November/December 1969, USA

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Typographical training for technicians and technical training for typographers

Adrian Frutiger

The text of Adrian Frutiger's article is taken from a paper given at the 16th International Congress on 'Education in Letterforms', held in Copenhagen during August 1973. The Congress was organised by the Association Typographique Internationale, and we are grateful for their permission to publish it in this issue

We all have within ourselves a great wealth of memories, the greater part of which we retain in the form of images. The strength with which these memories are retained depends upon the strength of our feelings when they were formed, or upon the number of times they are repeated.

The letters of our alphabet are part of the 'images' which are most deeply rooted within us. The image of an A or an E is so deeply etched upon our stream of consciousness that by sheer force of repetition they are forced right through the tablets of our minds into our subconscious, in the form of a single letter or the shape of a whole word. These images of signs form the fundamental elements of reading and writing.

The ordinary 'user' of writing is very strongly wedded to this pattern which is settled once and for all. If printers, students, employers, and teachers were aware of the existence of this pattern, rooted in the psyches of millions of readers across the surface of the world, then one might hope that this end-product of what has become handwriting would be treated with the knowledge and care it requires.

Who 'makes' typography today?

A very clear distinction is made today between two kinds of printed communication. The first consists of texts composed in small or medium sizes of type, produced by fast composing-machines, in order to transmit knowledge, ideas and information. The types used are increasingly subject to strict rules, which result in widespread comprehension of the types. The second category comprises fancy types, whose shapes may assume every imaginable style, right to the very limits of legibility, without upsetting the reader who is firmly set in his reading habits. Why is this so? Because fewer words are used, their range of meaning is limited, and because these texts—even when they are meant to convey a meaning—are viewed more like an illustration, and are seen rather than read, that is to say they do not fall into play patterns in our subconscious.

About ten years ago the first so-called electronic letters appeared. Readers were at first shocked by their deformed appearance, by their illogical and discordant excrescences (as they would have been on seeing a robot with a shape somewhat like a human silhouette). Not grasping that these exaggerations and deformities were imposed by the technique used, such types were employed in order to caricature the absurdity of the world of technology. Nevertheless their use served to accomplish an act of liberation so far as traditional forms were concerned.

The chain was broken: new forms of writing appeared, freed from the fetters of tradition, and this act cleared the stage for creativity; the results can be seen in today's periodicals and posters. It is not easy to judge their quality; the future will decide which of them will stay the course and which will disappear. Yet one thing is essential: any person in charge of groups of graphic designers making typefaces now has to change his teaching programme, so as to take into account the psychological changes which have occurred. Allow me, for example, to question whether it is now necessary to devote long hours to calligraphic exercises; to my mind, the same knowledge could be acquired by studying the proportions of black to white, and also the evolution of writing, etc, by different means better adapted to contemporary methods.

Typography for continuous texts

It is necessary to stress the essential difference which exists between text types and display types, because in exactly the same way there are really two categories of type designers; it is hard for one and the same designer to work in both fields. For a variety of reasons, I have belonged to the first category ever since my start in the profession; on that account my present concern centres mainly upon text composition. In designing typefaces for this purpose, it is now no longer possible to work without at least a sketchy knowledge of new techniques. I deliberately say 'sketchy' because an exact and detailed knowledge of the techniques used must remain the business of the technician. So I am tempted to make a technician into a typographer, in order that the machines should produce better typographical results. Nothing is gained by hoping to convince him on matters he cannot clearly understand, but can only be felt. It is much more important to gain his confidence, so that he accepts the fact that our viewpoint is a good one. (To tell the truth, we cannot prove much; it is hard in our profession to establish absolute truths, even on the basis of tests throughout the world.)

For this same reason, it is difficult for me to take an unambiguous stand on the subject on which I have been invited to contribute this paper.

Quality of setting in new composing machines

The point of impact between the form of letters and the development of a composition technique is in settling the standard of quality to be achieved, along with economic factors such as the speed of setting, the selling price, and the maintenance of the equipment, etc.

So when the rules of the game have been laid down, it is the task of the typographical specialist to 'distinguish good from bad'; again, he must do so in a realistic way, which means to say that he must have a clear idea of the method of work to be used (metal-setting of various kinds, filmsetting by machines of various 'generations', various typewriter systems, etc) so as not to ask the impossible from the machine in question.

One criticism might be made here; type designers do not keep up fast enough with the development of new kinds of machines, and are consulted too late in the day. Thus, for example, the 18-unit system seems to be set for the years ahead. Yet one knows—despite the fact that typography using the 18-unit system forms a good basis for quality—that tomorrow, for a limited investment, it will be possible to produce a typography which will have no limitations at all of units affecting widths. So it seems paradoxical that a virtue is already made of necessity, and that the shapes of letters which are limited by techniques in current use are fixed to form prototypes in the reader's subconscious (for example, types for hand composition are today cast on 18-units to correspond with the 'standard of reading' of a make of typesetting machine in widespread use).

The problem of training

When an automatic or semi-automatic composing machine leaves the makers' factory, and reaches the printer, the problem of special training arises. Every manufacturer makes it a point of honour to give his machines a wide range of possibilities to allow for spacing, deformations, combinations, etc. Specialists have their work to do. But when a machine is delivered to the buyer, it is not possible to deliver at the same time the desire to produce good quality setting from it. So it becomes the duty of the operator responsible for the machine to produce good typography with it. Therefore those responsible for the results obtained are no longer only the type-designers but also the filmsetter operators, who hold in their hands the possibility of debasing fundamental forms, of altering traditional spacing, of changing upright lines to a slope, and of playing around with the weight of the strokes. Therefore, it is a most important matter that some artistic training be given to the *technicians who are in daily control* of machines. Even a Stradivarius costing 100,000 dollars can't make beautiful music on its own.

a) training type designers
It follows from these remarks that one might say that hardly any problems arise in training type designers to make text types. Certainly a need exists in this field for a new and outstanding generation of designers; but from my own experience and observation, they are recruited mainly from volunteer enthusiasts who spend part of their working life under a 'master' of their choice and, like runners in a relay race, the flame is handed over in mid-course. Their number, especially in the field of the design of text types, will always be small.

b) training operators
The training of operators for filmsetting machines poses quite different and far more important problems. We might go back to the manufacturer and ask to what extent he is responsible for training the user of a filmsetter in its numerous capacities. Or ought we to leave it to the schools, with their limited and often outdated means, to make it their concern to preserve quality in composition? Might not the teaching of a new method of composition be made the responsibility (including with it the question of quality) of both industrialists and educationalists?

These remarks apply to manufacturers and users of typography in the widest sense of the word: *the written transmission of thought.*

It must be admitted that nowadays the reader himself usually has a sense of what is good typography. A text which is correctly laid out is felt by the reader to be at least pleasant to read, even if not actually beautiful. The reader will allow himself to be 'stretched' to a certain limit, but if he cannot discern any trace of what he basically considers writing ought to be when confronted with a text, he will give up reading the periodical or book in question; the text, together with the publisher and printer, will thus have failed in their purpose. The reader will always exercise his own critical faculties, just as he has always done throughout the centuries during which our handwriting has evolved.

Learning automatic reading

Here there is no question of any training, but of an understanding between technicians and type designers; this seems to me necessary so that they each teach each other what is really involved in teaching a machine how to read.
But if we look back at the developments in this field over the past ten years, it seems to me that we do not need to have any fears for the future; automatic machines will be subservient to men's needs and, tomorrow they will be able to read not only the most beautiful alphabets, without deforming them, but they will also be able to read all our handwriting.

The Executive Editor welcomes comments on articles, reviews or letters that appear in any issues of 'icographic.'
Correspondence should be addressed to the Executive Editor, 7 Templeton Court, Radnor Walk, Shirley, Croydon CRO 7NZ, England

Note to contributors

Handwriting

I can recognise any letter I receive from a friend in any part of the world by his handwriting. Handwriting is an aspect of personality and an expression of character. The way in which thought takes alphabetic shapes through the subconscious, and through the movements of the fingers as they manipulate the pen, is so complicated and secret a phenomenon, and also such an astonishing one, that one hesitates to tackle it. And yet it is necessary for the organization of our society to give children an education which enables them to understand the world.

When one considers automatic reading, the same question always comes up: how can a machine ever recognise the many different kinds of handwriting for such purposes as sorting mail? We can only assert that we see considerable progress in this field. Of course a machine will not decipher the letters which make up the word 'Smith' one by one. They will take the word as a whole and will compare it with word shapes in its memory store. These shapes will not consist of a single handwritten word, but of 100 or 1000 Smith's superimposed one upon the other, written in different handwriting, and together forming a basic shape. From then on, every time a computer comes across a new element—a new stroke or a new loop—it will integrate this exception into the shape it has stored; thus it will be able to correct itself over an indefinite period. This description might seem to be troublesome, but it is basically very satisfactory—because our own individuality will not be at risk with tomorrow's machines; the machines will adapt to us.

This does not mean that a great deal more might not be said on the question of how to teach handwriting properly. But I would like to leave this topic to qualified specialists, and I merely wish to say that it no longer means to us the acquisition of a 'fine hand' but rather the working out of fundamental structures which can be internationally applicable, and which would help different peoples throughout the world with different tongues to understand one another.

Correspondence

To the Executive Editor:

I am graphic designer stuying in Denmark came from Seoul, Korea. As a foreigner, I think, to study the western typeface is very difficult, but I have been interested in English alphabets and finished a exercise of new typeface design.
I believe, even though my new design is not reasonable, it will be a motivation of my advance study in this field, moreover, a basis to create new typeface of our alphabets when I will be in Korea after my studying of here.
As the notice of you periodical, I am enclosing a copy of my design exercise. If you don't mind, would you please introduce my poor design on a corner of your excellent magazine.
If you will kindly accept my ruddness, it will be of great honour to me.

Chung Siwha
Store Kongensgade 62, IV
1264 Copenhagen K
Denmark

I found your delightful request absolutely irresistable.
Editor



icographic would like to include a considerably larger selection of material from our Member Associations in future issues of the magazine.
Accordingly the Executive Editor would like to receive articles from members, or suggested experts in member countries.
Wherever possible, we would like to group submitted articles into an issue that bears upon a particular theme.
It would be helpful if such contributions were thought of as attempts to add to the collective knowledge of our organization and to the raising of design standards via cognitive, rather than intuitive judgements.
Graphic design has been slower to accumulate 'ergonomic' data than some of the other design professions, so that we would welcome reports of any investigations that could add to an understanding of the processes of visual communication.

Articles can be from 2000 to 6000 words (depending upon the extent of illustrative material).
They may be submitted in either French, German or English.
It would be particularly helpful if summaries in the remaining two languages could be submitted with the main text.

Listed below is a selection of suggested headings. The list is in no way definitive, it is intended merely to trigger off responses from possible contributors.

Advertising (persuasive or informative), Aesthetics (ethical or descriptive), Art movements in relation to visual communication, Animation, Book Design, Creativity, Cartography, Cartoons, Computer typesetting, Computer graphics, Corporate image, Children's books, Concrete poetry, Colour theory, Colour printing, Design philosophy, Design practise, Education, Education of graphic designers, Educational use of visual communication, Ergonomics of visual communication, Film, Film= setting, Graphic design schools, Graphics in architecture, coinage, entertainment, heraldry, music, magic or the occult, popular culture, religions, sport, science, space-travel, stamps, seals, transport, etc. Human communication, Information theory, International languages, Legibility research, Methodology, Magazine and newspaper design, Psychology of perception, Printing processes, Photography, Semiotics, Traffic signs, Television and videotape as media for visual communication, 'Underground' publishing.

Please address all contributions or enquiries to the Executive Editor, *icographic,* 7 Templeton Court, Radnor Walk, Shirley, Croydon CRO 7NZ England.

Appendix to sound-writing

As supplementary material to Kingsley Read's fascinating article on 'Sound-writing', I include two contributions that further illuminate the problems facing any designer wishing to wrestle with the oddities of English orthography.

Below is a poem by the Dutch poet Charivarius, *entitled* De Chaos. *It amusingly details the frustrations faced by anyone learning English. Any attempt to deduce the pronunciation of a word from its spelling is hazardous. Memory, not logic, is one's only hope!*

Dearest *creature* in *Creation,*
Studying English pronunciation,
I will teach you in my verse
Sounds like *corpse, corps, horse*
and *worse.*
It will keep you, *Susy, busy.*
Make your *head* with *heat*
grow dizzy;
Tear in eye your dress you'll *tear.*
So shall I! Oh hear my *prayer.*
Pray, console your loving poet,
Make my coat look *new,* dear, *sew* it!
Just compare *heart, beard* and *heard,*
Dies and *diet, lord* and *word,*
Sword and *sward, retain* and *Britain,*
(Mind the latter, how it's written!)
Made has not the sound of *bade,*
Say—*said,* pay—*paid, laid,* but *plaid.*
Now I surely will not *plague* you
With such words as *vague* and *ague,*
But be careful how you speak,
Say *break, steak,* but *bleak* and *streak,*
Previous, precious; fuchsia, via;
Pipe, snipe, recipe and *choir,*
Cloven, oven; how and *low;*
Script, receipt; shoe, poem, toe,
Hear me say, *devoid* of trickery;
Daughter, laughter and *Terpsichore,*
Typhoid; measles, topsails, aisles;
Exiles, similes, reviles;
Wholly, holly; signal, signing;
Thames; examining, combining;
Scholar, vicar and *cigar,*
Solar, mica, war and *far.*
From "desire"; *desirable—admirable*
from "admire",
Lumber, plumber; bier but *brier;*
Chatham, brougham; renown but
known,
Knowledge; done, but *gone* and *tone,*
One, anemone; Balmoral;
Kitchen, lichen; laundry, laurel;
Gertrude, German; wind and *mind;*
Scene, Melpomene, mankind;
Tortoise, turquoise, chamois-leather,
Reading, Reading, heathen, heather.
This phonetic labyrinth
Gives *moss, gross, brook, brooch,*
ninth, plinth.
Billet does not end like *ballet;*
Bouquet, wallet, mallet, chalet;
Blood and *flood* are not like *food,*
Nor is *mould* like *should* and *would.*
Banquet is not nearly *parquet,*
Which is said to rime with "darky".
Viscous, viscount; load and *broad;*
Toward, to *forward,* to *reward,*
And your pronunciation's OK.
When you say correctly *croquet;*
Rounded, wounded; grieve and *sieve;*
Friend and *fiend; alive* and *live;*
Liberty, library; heave and *heaven;*
Rachel, ache, moustache; eleven.
We say *hallowed,* but *allowed;*
People, leopard; towed but *vowed.*
Mark the difference, moreover,
Between *mover, plover, Dover,*
Leeches, breeches; wise, precise;
Chalice but *police* and *lice.*
Camel; constable, unstable;
Principle, disciple; label;
Petal, penal and *canal;*
Wait, surmise, plait, promise; pal,
Suit, suite, ruin, circuit, conduit
Rime with "shirk it" and "beyond it".
But it is not hard to tell,
Why it's *pall, mall,* but *Pall Mall.*
Muscle, muscular; gaol; iron;
Timber, climber; bullion, lion,
Worm and *storm; chaise, chaos, chair;*
Senator, spectator, mayor.
Ivy, privy; famous, clamour
And *enamour* rime with "hammer".
Pussy, hussy and *possess.*
Desert, but *dessert, address.*
Golf, wolf; countenance; lieutenants
Hoist, in *lieu* of flags, left pennants.
River, rival; tomb, bomb, comb;
Doll and *roll* and *some* and *home.*
Stranger does not rime with *anger,*
Neither does *devour* with *clangour.*
Soul, but *foul* and *gaunt,* but *aunt;*
Font, front, wont; want, grand,
and, grant,
Shoes, goes, does. Now first say:
finger,
And then: *singer, ginger, linger.*
Real, zeal, mauve, gauze and *gauge;*
Marriage, foliage, mirage, age.
Query does not rime with *very.*
Nor does *fury* sound like *bury.*
Dost, lost, post and *cloth, doth, loth;*
Job, job, blossom, bosom, oath.
Though the difference seems little,
We say *actual,* but *victual,*
Seat, sweat, chaste, caste; Leigh,
eight, height;
Put, nut; granite but *unite.*
Reefer does not rime with "deafer".
Feoffer does, and *zephyr, heifer.*
Dull, bull; Geoffrey, George;
ate, late;
Hint, pint; senate, but *sedate;*
Scenic, Arabic, pacific;
Science, conscience, scientific;
Tour, but *our,* and *succour, four;*
Gas, alas and *Arkansas!*
Sea, idea, guinea, area,
Psalm; Maria, but *malaria;*
Youth, south, southern; cleanse
and *clean;*
Doctrine, turpentine, marine.
Compare *alien* with *Italian,*
Dandelion with *battalion,*
Sally with *ally; yea, ye,*
Eye, I, ay, aye, whey, key, quay!
Say *aver,* but *ever, fever,*
Neither, leisure, skein, receiver.
Never guess—it is not safe;
We say *calves, valves, half,* but *Ralf!*
Heron; granary, canary;
Crevice, and *device,* and *eyrie;*
Face but *preface,* but *efface.*
Phlegm, phlegmatic; ass, glass, bass;
Large, but *target, gin, give, verging;*
Ought, out, joust and *scour,* but
scourging;
Ear, but *earn;* and *wear* and *tear*
Do not rime with "here", but "ere".
Seven is right, but so is *even;*
Hyphen, roughen, nephew, Stephen;
Monkey, donkey; clerk and *jerk;*
Asp, grasp, wasp; and *cork* and *work.*
Pronunciation—think of *psyche!*—
Is a paling, stout and spikey;
It's a dark *abyss* or tunnel,
Strewn with stones, like *rowlock,*
gunwale,
Islington and *Isle* of Wight,
Housewife, verdict and *indict!*
Don't you think so, reader, rather,
Saying *lather, bather, father?*
Finally: which rimes with "enough",
Though, through, plough, cough,
hough, or *tough?*
Hiccough has the sound of "cup"....
My advice is—give it up!

The short extract below is taken from the preface which George Bernard Shaw wrote for Professor R A Wilson's book The Miraculous birth of Language, *published by J M Dent, London, 1941*

"And now what, exactly, do I want done about it? I will be quite precise. I want our type designers, or artist-calligraphers, or whatever they call themselves, to design an alphabet capable of representing the sounds of the following string of nonsense quite unequivocally without using two letters to represent one sound or making the same letter represent different sounds by diacritical marks. The rule is to be One Sound One Letter, with every letter unmistakably different from all the others. Here is the string of nonsense. An alphabet which will spell it under these conditions will spell any English word well enough to begin with.

Chang at his leisure was superior to Lynch in his rouge, munching a lozenge at the burial in Merrion Square of Hyperion the Alien who valued his billiards so highly.

Quick! quick! hear the queer story how father and son one time sat in the house man to man eating bread and telling the tale of the fir on the road to the city by the sea following the coast to its fall full two fathoms deep. There they lived together served by the carrier, whose narrower mind through beer was sore and whose poor boy shivered over the fire all day lingering in a tangle of tactless empty instinct ineptly swallowing quarts of stingo.

As well as I can count, this sample of English contains 372 sounds, and as spelt above requires 504 letters to print it, the loss in paper, ink, wear and tear of machinery, compositors' time, machinists' time, and author's time being over 26 per cent, which could be saved by the use of the alphabet I ask for. I repeat that this figure, which means nothing to the mass of people who, when they write at all, seldom exceed one sheet of notepaper, is conclusive for reform in the case of people who are writing or typing or printing all day. Calligraphers intelligent enough to grasp its importance will, if they have read these pages, rush to their drawing boards to seize the opportunity.

The first question that will occur to them is how many letters they will have to design; for it wiil seem only common sense to retain the twenty= six letters of the existing alphabet and invent only the ones in which it is deficient. But that can only serve if every letter in the twenty-six is given a fixed and invariable sound. The result would be a spelling which would not only lead the first generation of its readers to dismiss the writers as crudely illiterate, but would present unexpected obscenities which no decent person could be induced to write. The new alphabet must be so different from the old that no one could possibly mistake the new spellings for the old.

This disposes of all attempts at 'simplified spelling' with the old alphabet. There is nothing for it but to design twenty-four new consonants and eighteen new vowels, making in all a new alphabet of forty-two letters, and use it side by side with the present lettering until the better one ousts the worse.

The artist-calligraphers will see at first only an opportunity for forty= two beautiful line drawings to make a printed book as decorative as a panel by Giovanni da Udine, and a handwritten sonnet as delightful visually as one by Michael Angelo, the most perfect of all calligraphers. But that will never do.
The first step is to settle the alphabet on purely utilitarian lines, and then let the artists make it as handsome as they can. For instance, a straight line, written with a single stroke of the pen, can represent four different consonants by varying its length and position. Put a hook at the top of it, and you have four more consonants. Put a hook at the lower end, and you have four more, and put hooks on both ends and you have another four; so that you have sixteen consonants writable by one stroke of the pen. The late Henry Sweet, still our leading authority on British phonetics, begins his alphabet in this way, achieving at one stroke p, t, k, and ch; b, d, g (hard), and j; m, n, ng, and the ni in companion; kw, r, Spanish double l, and the r in superior. He takes our manuscript e and I (different lengths of the same sign) and gets f, s, and zh.
Turning it backwards he gets v, z, and sh. He takes our c and o, and gets dh and th. A waved stroke gives him l; and thus, borrowing only four letters from our alphabet, he obtains the required twenty-four consonants, leaving twenty-two of our letters derelict. For vowels he resorts to long and short curves at two levels, with or without little circles attached before ar after, and thus gets the requisite eighteen new letters easily. Thus the utilitarian task of inventing new letters has already been done by a first rate authority. The artists have only to discover how to make the strokes and curves pleasing to the eye."



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ICOGRADA

The International Council of Graphic Design Associations was founded in London in April 1963. ICOGRADA is an association of independent Member Associations. Membership is open to societies of professional graphic designers and organisations concerned with the training of designers and/or the raising of graphic design standards. Member associations are elected at the biennial General Assembly, which elects also the Executive Board, determines policy and overall activities and agrees financial arrangements.

The aims of ICOGRADA are:

1
to raise internationally the standards of graphic design and professional practice by all practicable means.
2
to collect and exchange information on professional, educational and technical matters.
3
to improve graphic design training and to assist the interchange between countries of graphic designers, teachers and students.
4
to organise exhibitions, international assemblies, congresses and symposia and publish documentation on graphic design and visual communications technology, including a News Bulletin.
5
to act as an international forum for co-operation and exchange of views between designers, organisations representing professionals from allied and other fields and those of commerce and industry.
6
to encourage the better use of graphic design and visual communication as a means to improve understanding between people everywhere.

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